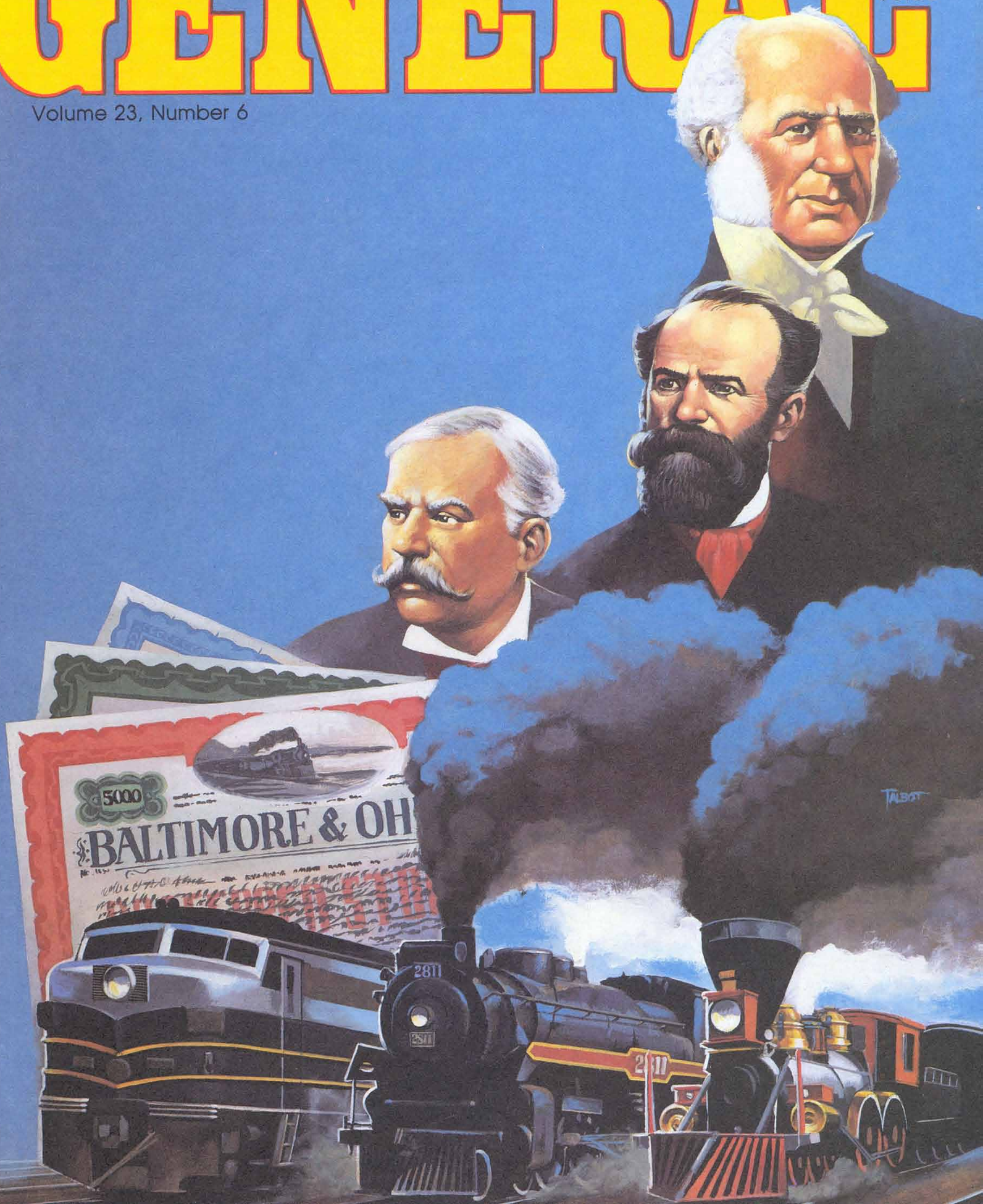


GENERAL

\$3.00

Volume 23, Number 6



★ ★ The AVALON HILL GENERAL

The Avalon Hill Game Company's *GENERAL* is dedicated to the presentation of authoritative articles on the strategy, tactics, and variation of our games of skill. Historical articles are included only inasmuch as they provide useful background information on current AH titles. The *GENERAL* is published by The Avalon Hill Game Company solely for the cultural edification of the serious game aficionado, in the hopes of improving the game owner's proficiency of play and providing services not otherwise available to the game buff. The Avalon Hill Game Company is a division of Monarch Avalon Industries, Inc. The shares of Monarch Avalon, Inc. are publicly traded on the NASDAQ System under the symbol MAHI. For information about the company write to Martha Burman at the executive offices at the company, 4517 Harford Rd., Baltimore, MD 21214.

Publication is bi-monthly with mailings made close to the end of February, April, June, August, October and December. All editorial and general mail should be sent to The Avalon Hill Game Company, 4517 Harford Road, Baltimore, MD 21214. One year subscriptions are \$12.00. Two year subscriptions are \$18.00. All domestic subscriptions sent via bulk permit. Domestic First Class Delivery and all subscriptions to Canada and Mexico must pay an additional \$12.00 per year postage charge. All overseas subscriptions must add an additional \$18.00 per year postage charge. Send checks or money orders only. The Avalon Hill Game Company is not responsible for cash lost in transit. Those with a current American Express, VISA, MasterCard or Choice may call 800-638-9292 toll free to renew subscriptions or order merchandise. Absolutely no complaints or questions will be handled on this number. Any business other than a credit card purchase must be handled by mail. Address changes must be submitted at least 6 weeks in advance to guarantee delivery. Paid advertising is not accepted, but news of importance to the gaming community is solicited. Convention announcements must be received at least 3 months in advance and contain information pertaining to The Avalon Hill Game Company's games in use.

Articles from subscribers are considered for publication at the discretion of our editorial staff. Articles should be typewritten, double-spaced, and embrace the tenets of good English usage. There is no limit to word length. Accompanying examples and diagrams should be neatly done in black or red ink. Photographs should have caption and credit line written on back. Rejected articles will be returned whenever possible. Potential authors should be advised that all outside submissions become the sole property of The Avalon Hill Game Company.

EXECUTIVE EDITOR: Donald J. Greenwood

MANAGING EDITOR: Rex A. Martin

GRAPHICS: Jean Baer, Charles Kibler and Regina deSimone

COVER ART: Jim Talbot

AREA Technician: Brenda Parrish

GENERAL Subscriptions: Richard Snider

Purchase of Games, PBM kits and parts: Michael J. Tharfe

FOREIGN DISTRIBUTORS: Overseas readers are urged to make subscription arrangements with the appropriate agent. AUSTRALIA: Jedko Games Ltd., 134 Cochrane Road, Moorabbin 3189, Victoria; GREAT BRITAIN: T.M. Games, Chart House, Station Road, East Preston, Littlehampton, BN16 3AG; HONG KONG: Wilkinson (Far East) Co., 1741st Floor, Peninsula Centre, 67 Mody Road, Kowloon; ITALY: Selegioch s.r.l., Via Fumagalli 6, 20143 Milano; JAPAN: Post Hobby, Yoyogi, Cityhomes Bldg. 26-5, 5-chome Sendagaya, Shibuya-ku, Tokyo 151; LEBANON: Nassar Trading Post, Makdissi St., P.O. Box 113-5284, Beirut; SINGAPORE: Wong International Entr., 6 Jalan Sinar Bulan, Singapore 1750; SPAIN: Joc International de F. Matas Salla, Sant Hipolit 20, 08030, Barcelona 6; SOUTH AFRICA: Gamma Games Ltd., P.O. Box 2904, Capetown 8000; SWEDEN: Target Games, Frihamnen, S-100 56 Stockholm; WEST GERMANY: DAS Spiel, Rentzelstrasse 4/Ecke Grindelallee, 2000 Hamburg 13.

Rules Questions: R&D. NOTE: all questions should be diagrammed. No questions can be answered which are unaccompanied by a self-addressed envelope. Questions must be based on rules of play (not historical or design matters) and be based on the current rules edition. Questions on more than one game must be listed on separate pages and accompanied by a separate SASE for each game.

IF YOU CHANGE YOUR ADDRESS: Inform us immediately. The Post Office destroys magazines even if you leave a forwarding address. The Avalon Hill Game Company assumes no responsibility for issues lost due to an invalid address. Please state both your new and old address.

AH Philosophy Part 120

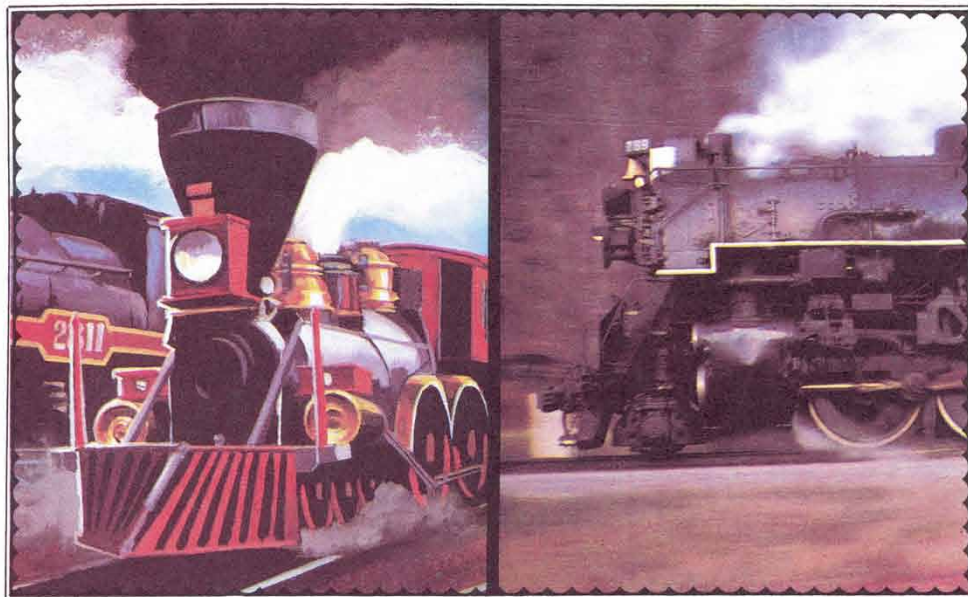
Once again it is summer here in Charm City. Ice cream, picnics, baseball games, and the Fourth of July. And *ORIGINS '87*, the National Adventure Gaming Convention. Which just happens to be held on the Fourth in downtown Baltimore. By the time you read this column, *ORIGINS* will be upon us (or perhaps past). For those among our readership who will not be in attendance, maybe a brief glimpse of our doings will encourage you to take the effort to attend in the future.

First, and foremost for many, *ORIGINS* means tournaments—competition against the best players in the most popular games in our hobby. The products of the Avalon Hill Game Company are always well represented; indeed some of these tournaments have become traditions. For instance, the annual flight into danger in the *B-17* tournament or the race for merchandise through the medium of *CIRCUS MAXIMUS*; maybe you'd care to try your hand with the Wehrmacht in *RUSSIAN FRONT* or

the British paratroopers in *STORM OVER ARNHEM* (hosted by the game's designer, Courtney Allen). Or you could join Ken Whitesell in his double-elimination *UP FRONT/BANZAI* tournament or his mad-cap *SPEED CIRCUIT* challenge. For those addicted to multi-player games, the "New York Game Board" will host competition in *DIPLOMACY*; there are also tournaments in *KINGMAKER*, *TITAN*, *STELLAR CONQUEST*, *DUNE*, *ACQUIRE* and *CIVILIZATION*. The "demo derby" format is used for competition in *RICHTHOFEN'S WAR* and *AIR FORCE/DAUNTLESS*. Napoleonic gamers are served by multi-player tournaments for *WOODEN SHIPS & IRON MEN* and *WAR & PEACE*. And ace playtester Jon Mishcon oversees the competition for *ASL*.

Our own designers get into the fray by hosting tournaments in some of Avalon Hill's latest releases.

Continued on Page 36, Column 3



A VERY GOOD YEAR

Development Notes for *1830*

5
By Bruce Shelley

TAKE A RIDE ON THE READING

Variants for *1830*

12
By Alan R. Moon

ALL ABOARD

A Ride on the *1830 Express*

14
By Edward Fahrmeier

REVOLUTION AGAINST THE REVOLUTION

The Nicaraguan Contra War and *FIREPOWER*

16
By James Werbaneth

MY FAVORITE LINES

The Railroads of *RAIL BARON*

26
By Matt Ellis

THE LONG HAUL

Axis Strategy for *THE RUSSIAN CAMPAIGN*

29
By James Werbaneth

THE ROAD TO LITTLE ROUND TOP

DEVIL'S DEN By Mail

33
By James Lutz

BEYOND MANIFEST DESTINY

American Play in *PAX BRITANNICA*

37
By James Werbaneth

HOW YA GONNA KEEP 'EM DOWN ON THE FARM

City-Building Strategies for *CIVILIZATION*

40
By Albert Parker

A LITTLE HELP FROM FRIENDS

Giving Suckers an Even Break in *MAGIC REALM*

42
By Michael Anchors

PATTON'S BEST

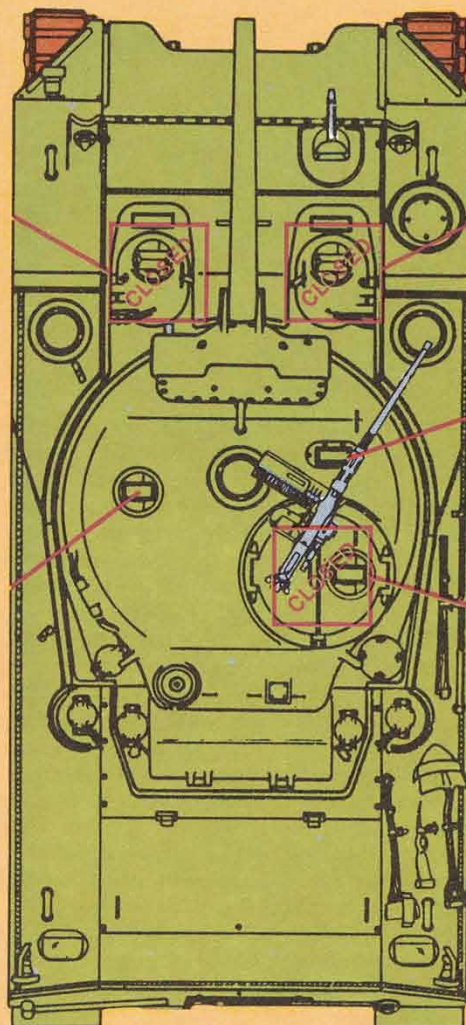
PATTON'S BEST is The Avalon Hill Game Company's new solitaire game that puts you in the commander's seat of a Sherman tank in George Patton's best fighting division, the 4th Armored. You can play through a short engagement, a complete day of movement and battle, or follow the day-by-day European campaign of the 4th Armored Division. The success and survival of your tank depends on your decisions.

Button up for the safety or fight from an open hatch for better visibility? What type of ammo to load and fire at which target? Move forward for a more deadly side shot, fall back to a hull down position, or put down a smoke screen?

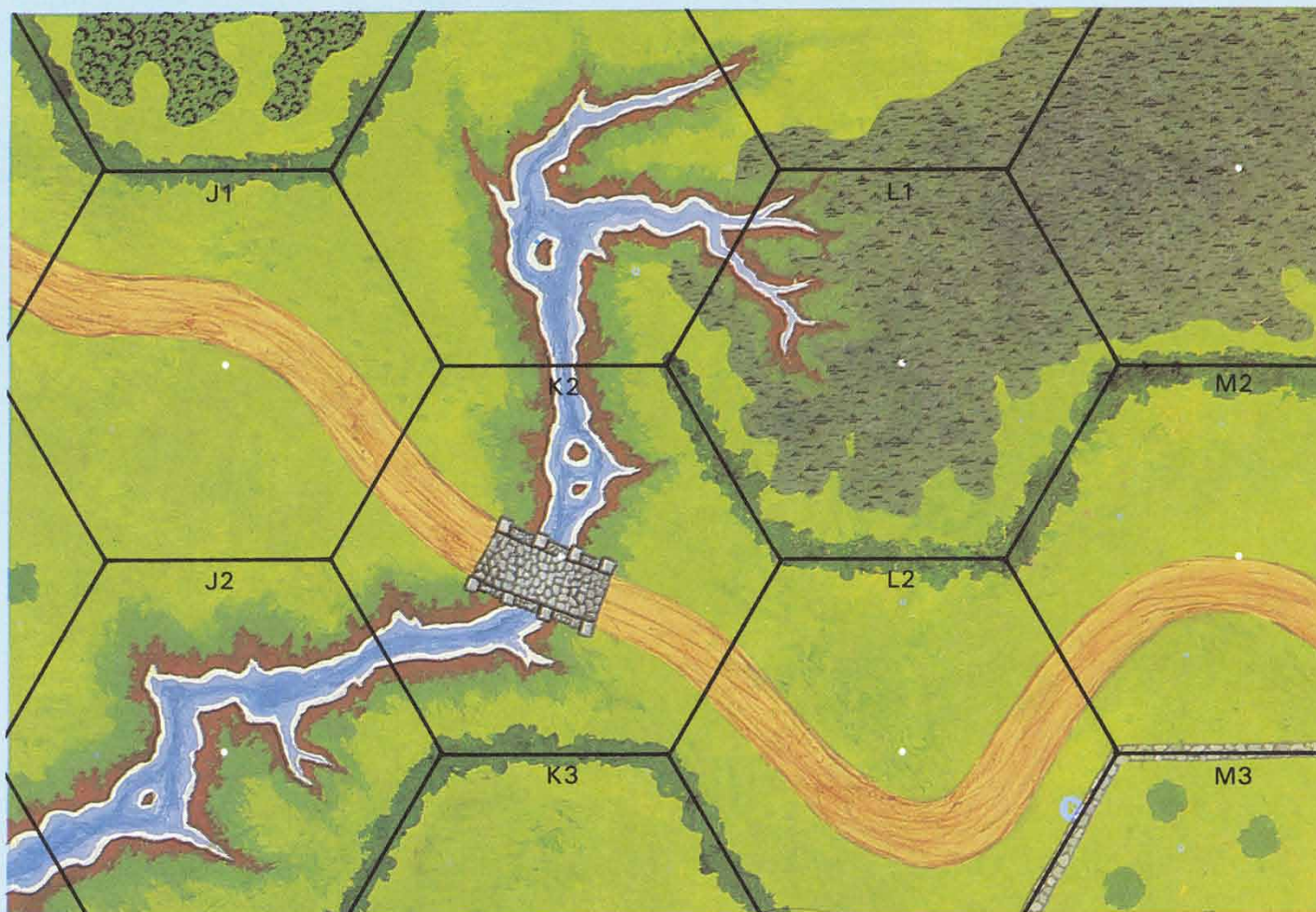
You control only your tank and crew. Each crew member is rated for skill at his position, and his rating will affect how well he performs. Your crew will start with relatively low ratings, but if they can survive to become veterans, their ratings and the efficiency of your tank can improve. You will start out in a basic M4 Sherman tank, but may later command any of 17 different Sherman variations. The solitaire game system controls the generation and action of the German units you will be facing, and the rest of the American task force of which you are part. Included are three types of scenarios: **Advances**, representing the breakthroughs and rapid movements through enemy territory; **Battles**, where the Division is attacking prepared enemy positions; and **Counterattacks**, where you defend against German attacks.

- Command any one of 17 different American Sherman tank variations or the British Sherman Firefly variant included for comparison.
- Fight a single engagement, a day of battle, or the entire campaign of the 4th Armored Division.
- Win promotions and decorations for valor.

PATTON'S BEST is now available for \$25.00 from The Avalon Hill Game Company, 4517 Harford Road, Baltimore, Maryland 21214. Please add 10% for shipping and handling (20% for Canadian orders; 30% for overseas orders). Maryland residents please add 5% state sales tax.



HEDGEROW HELL®



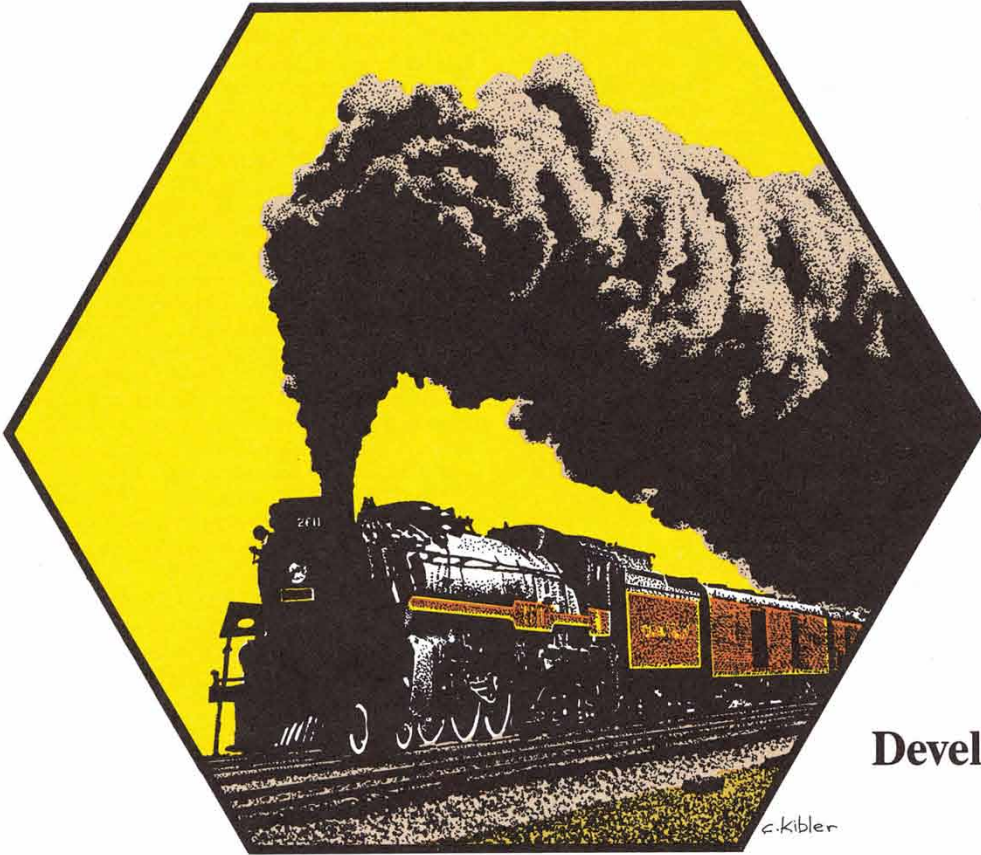
In **HEDGEROW HELL** you'll receive four full-color, geomorphic, mounted 11" x 26" mapboards depicting typical country terrain, and eight specially-designed scenarios for use on those boards depicting the bitter fighting following the invasion of Normandy. New counters for use with the AFV cards are included; players will need no special rules for their use, these being contained in the **ASL** rulebook, the **BEYOND VALOR** and **YANKS** modules. Those wishing to use basic **SQUAD LEADER** rules may use these mapboards; possession of **ASL** is not necessary but is recommended for play of the specific scenarios enclosed herein.

HEDGEROW HELL is the second boxed module of **Deluxe ASL**, an enlarged 2.2" hex scale for playing **ASL**. The greatest thing about **Deluxe ASL** may be that once you know how to play **ASL**, you also know how to play the Deluxe version. The rules, for all practical purposes, are identical; the only changes deal with the physical stacking or positioning of counters within the enlarged hexes. In short, **Deluxe ASL** is no more difficult than **ASL**. In fact, it is much more playable, due to the many conveniences proffered by the larger hex size; **Deluxe ASL** is simply **ASL** without stacking. There is sufficient room in each hex to allow over a dozen counters to be placed without placing one atop another. This makes the

game play faster, because pieces don't have to be constantly shuffled to count FP factors or moved out of the way to check LOS or the height of buildings. Even system counters can often be laid aside units rather than stacked atop them, so obscuring their identity. Other informational counters, such as CA markers, are not even needed because CA is readily determined by placement within the hex. **Deluxe ASL** is so much easier to play that we even recommend the use of 1/285th scale miniatures for those interested in the ultimate panoramic splendor in their gaming. Frankly, if you enjoy **SQUAD LEADER** or **ADVANCED SQUAD LEADER**, we can't recommend this scale highly enough. It magnifies the playability and enjoyment of the game even more than it increases the size of the hexes themselves.

HEDGEROW HELL contains no rules or counters; ownership of **SQUAD LEADER** or **ADVANCED SQUAD LEADER** is required.

HEDGEROW HELL is available now for \$28.00 from The Avalon Hill Game Company (4517 Harford Road, Baltimore, MD 21214). Please add 10% to cover shipping and handling (20% for Canadian orders; 30% overseas). Maryland residents please add 5% state sales tax.



A VERY GOOD YEAR

Development Notes for 1830

By Bruce Shelley



Our design staff heard the first news of *1830*'s existence during "Origins" in 1982. Tom Tresham, the brother of *1830* designer Francis Tresham, had come to the convention representing an English game distributor and we questioned him at length for game news from England, especially regarding his brother. By this date we had already purchased *CIVILIZATION* from Francis and had been playing his *1829* games about British railroads for many years. The idea of an *1829*-type game about American railroads appealed to us immediately, and we told Tom to pass on the word that we were very interested in seeing *1830*.

The *1830* proponents on our staff at this time were Mick Uhl, Alan Moon, Richard Hamblen, Rex Martin and myself. My own interest traced back to the first Michigan "Origins", when I stumbled across a mixed group of gamers from MIT and Penn playing the first *1829* game. I was immediately fascinated by the topic and mechanics, and quickly knew "I've got to get this game." I soon did and *1829* became regular fare at the meetings of the UVA game club to which I belonged. My future colleagues at Avalon Hill had come across *1829* on their own a couple of years before this, and although they liked it very much, they did not believe it was a sellable product in the United States.

Not being the patient sort, I wrote to Francis after the '82 Origins on behalf of Avalon Hill reiterating our interest in the *1830* project and offering to help in any way I could. Francis responded enthusiastically, beginning a long and enjoyable transatlantic correspondence. He had been hoping to sell the *1830* game to us all along, and was pleased to find strong support already in place.

In the fall of 1982, then, we were excited by the prospect of soon having an *1830* prototype in hand, and seeing it in print quickly thereafter. However,

this was not to be. *1830* was not published until the early spring of 1986, almost four years after we had first heard of its existence. Over this time period the project had many ups and downs, including the nadir in the fall of 1984 when *1830* was all but dead.

The first major delay was quite simple to understand. In the fall of 1982 the game was not finished. Although Francis had a game that was being play-tested, he was not yet sufficiently satisfied to submit it. In Baltimore, we were quite anxious to get a prototype to examine, but Francis felt this would not be helpful and continued his development in England. The help we could give in this stage was mostly research on aspects of North American railroads and general encouragement. I recall sending information on possible private companies, suitable colors for the railroad pieces, and even designing a sample president's certificate. Word finally arrived that Tom and Francis were coming to Origins '83 in Detroit and were bringing an *1830* prototype to leave with us.

I don't believe I have looked forward with more excitement to any event in my gaming experience than I did to meeting Francis and seeing his *1830* prototype. By now I felt we had become good friends through our correspondence and I had the highest regard for his earlier games. Our meeting was a great thrill for me, and I think also for the entire Avalon Hill entourage, as both Tresham brothers proved to be quite charming and good company.

My first exposure to the *1830* prototype was no less a success. The map and pieces looked much as they do today. We immediately arranged a playtest for the afternoon, and thereafter played it several more times before the convention ended. For our early playings we concentrated on learning the rules and components, and we all enjoyed it very much. I enthusiastically recommended it to Tom Shaw and

was backed up by others who had had a chance to play. The convention ended too quickly for me, and the Treshams could not stop in Baltimore on their way home as they (and we) had hoped. I returned home with the prototype and quickly arranged to show it to the local enthusiasts who hadn't gone to Detroit.

My memory of what this first prototype was like is a little hazy as it did not remain in its original form for long. Also, that first copy was returned to England during the game's dark days. The largest differences between this early game and what was published are as follows:

- 1) On the stock market there were no orange and brown zones, and the highest prices reached \$1000 instead of \$350 (in the same number of spaces).
- 2) You could not buy stock in your choice of railroads after the private companies were sold. Instead, the companies were sold in order—PRR, NYC, CP, B&O, C&O, ERIE, NYNH&H, B&M. Shares in the NYC could not be bought until all PRR shares had been bought. Shares in the CP could not be bought until all NYC shares had been bought, and so on.
- 3) Initial share prices were fixed—PRR (\$100), NYC (\$90), CP (\$82), B&O (\$76), C&O (\$71), and all others \$67. Tokens were placed on the Stock Market in a specific box marked for each railroad.
- 4) Private Companies could be sold to railroads for up to five times their printed value. Printed values were higher; I recall the Camden & Amboy was \$210 and the B&O was \$265. (Thus, the C&A could be sold to a railroad for up to \$1050.)
- 5) The PRR and NYC had no 20% certificate, just ten 10% shares, one of which was the president's certificate. The NYNH&H had a 30% president's

certificate, a 20% certificate, and five 10% certificates. The B&M had a 40% president's certificate, two 20% certificates, and two 10% certificates.

6) The map was very close to the published map, some important differences being no bypass track around the PRR home base in hex H-12 and the printed track on the New York hexagon connecting to hexes F-18 and G-17 instead of F-20 and H-18 as they do now.

Back in Baltimore we began playtesting in earnest. It took a few playings to get the rules down and get together a cadre of experienced players. As our playing continued through the summer and fall, our dissatisfaction with parts of the game increased. The wide open play of 1830 was a radical departure from the stately elegance we were familiar with from 1829. Bankruptcies were a common occurrence. To a large extent, a player's fate in the game was out of his own hands.

Our first major concern dealt with the selling of the private companies for up to five times face value. The holders of the big private companies would sell for all they could get and then buy up stock. Players not in a position to do this seemed to be at a clear disadvantage, as the others would fill their stock portfolios much earlier. I have notes on one playtest where two "3" trains had been bought. During the stock round following the purchase of those "3" trains, every remaining company in the game (#4-#8) were floated. This resulted in almost every company share selling for less than \$40, and a wild scramble for trains thereafter.

This sudden acceleration of the game seemed to lead to other distortions. So many railroads would be floated so quickly that we would find ourselves purchasing "5" trains before they were really useful. In another playtest we had a situation where the trains came out so suddenly that the "4" trains operated for only one operating phase. In other cases, the player purchasing the last "4" train never got to operate it all, as his purchase was immediately followed by purchases of all the "5"s, one "6", and a Diesel.

The extremely high stock values also seemed unsatisfactory, as they made share dividends substantially less important. The smart play seemed to be a consistent payment of dividends, regardless of the amount, to drive up the stock price. Obtaining a larger train was not worth any reduction in stock price because the last couple of jumps in the price (\$100 per turn as I recall) could not be made up by any increase in train size. Thus, there was too little emphasis on board play towards winning. The value of track routes and rolling stock had a much reduced relation to winning compared to stock values. Diesels were only bought as an offensive ploy, to remove all "4" trains from play and possibly force other players to buy diesels out of their pocket. We rarely saw more than three diesels purchased, and usually only one was purchased intentionally.

Our final major criticism concerned map play, including the relation of the order of the railroads and the interaction of the tiles and map. In our opinion after several playtests, incentives built into the game resulted in rail nets and operations that often bore little resemblance to historical fact. For example, the Canadian Pacific as the third railroad to operate, invariably laid track straight for Albany and placed a token there at its first opportunity. This guaranteed access to New York. With these connections the CP had little incentive ever to build track in Canada, and the later New England railroads were limited in their development. Also, the Baltimore & Ohio had access to such lucrative routes in its immediate vicinity that there was little incentive to build west. Historically, of course, the B&O was founded to connect Baltimore with the Ohio River Valley and siphon off some of the trade traveling to New York via the Erie Canal. The B&O never

built past Washington, but in the game the first tile usually played by the B&O connected it to Richmond through Washington. Of all the rivers included on the map, the Ohio River was absent. We thought this was an error as the PRR, B&O, and C&O were all trying to reach this river and the important trade this would open up. Another example is the C&O railroad which begins play in Cleveland. The C&O began life as the Virginia Central, a major Confederate artery during the Civil War, and was renamed the C&O in 1868. Its headquarters was in Richmond until relocated in Cleveland by J.P. Morgan. Like the B&O, the C&O was trying to connect the eastern seaboard with the growing west. But in our game, the C&O was already west, and spent most of its time building east.

By November of 1983 we had detailed our dissatisfactions to Francis, and I believe they came as a shock to him. Our correspondence increased but we found it took at least a month for a letter to be received, considered, and answered. We looked for extraneous factors that might have influenced our different perceptions of the game. For example, in my experience with the Treshams, they played a very gentlemanly game, concentrating on having fun but not apparently driven to win. I found myself and fellow American players to be very aggressive and analytical, constantly stretching the rules looking for an advantage. Francis also always played in games of three or four players, while we usually had five or six. There was some concern that a larger number of players destabilized the game. In a smaller game every player should have a early chance to operate a railroad. In a larger game, however, some players would have to wait. Refuting my assertion that American players were aggressively trying to win, we found players without a railroad to operate would do whatever they had to do to get a presidency, regardless of the effect on their chances to win. This phenomena worked to destabilize the game, driving down stock prices and accelerating the retirement of trains.

Francis and I also found we had a different idea of how the game should play. I was looking for more of the measured pace of 1829 where the game progressed through a slow evolution of stages. Francis wanted to intentionally do something different from 1829 (he did not consider his second version of 1829 as successful as the first), and he wanted to capture some of the wide open free-for-all entrepreneurship that embodied the building of American railroads. We were both interested in having the game playable in under four hours and keeping the number of components to a minimum.

Still anxious to get the game in print, and believing we were still on the verge of making a great game, I decided to make changes to the game where I thought necessary. I thought this would help, especially considering the difficulty in communicating with England. I was hoping to actually demonstrate solutions to what we perceived to be wrong, where my arguments were not succeeding. Mick Uhl and I concentrated mainly on the map and tiles. We thought that a few changes on the map could improve the historicity of the game by providing incentives for a more historical development. Looking now at a surviving copy of the map we made at this time I see several changes of this type that were not incorporated in the final game. For example, I added the Ohio River which wandered through eight hexes of the map's southeast corner, plus several important river cities—Cincinnati, Wheeling, and others not named. The PRR base hex had no track bypass and the hex immediately to the east of the PRR base is a mountain hex. This forced most railroads wishing to go west to cross a mountain. The new cities on the Ohio, plus making Chicago a 20/100 and the Gulf a 40/80, were to hopefully provide incentive for westward expansion. Both Albany and Philadelphia were also made river hexes.

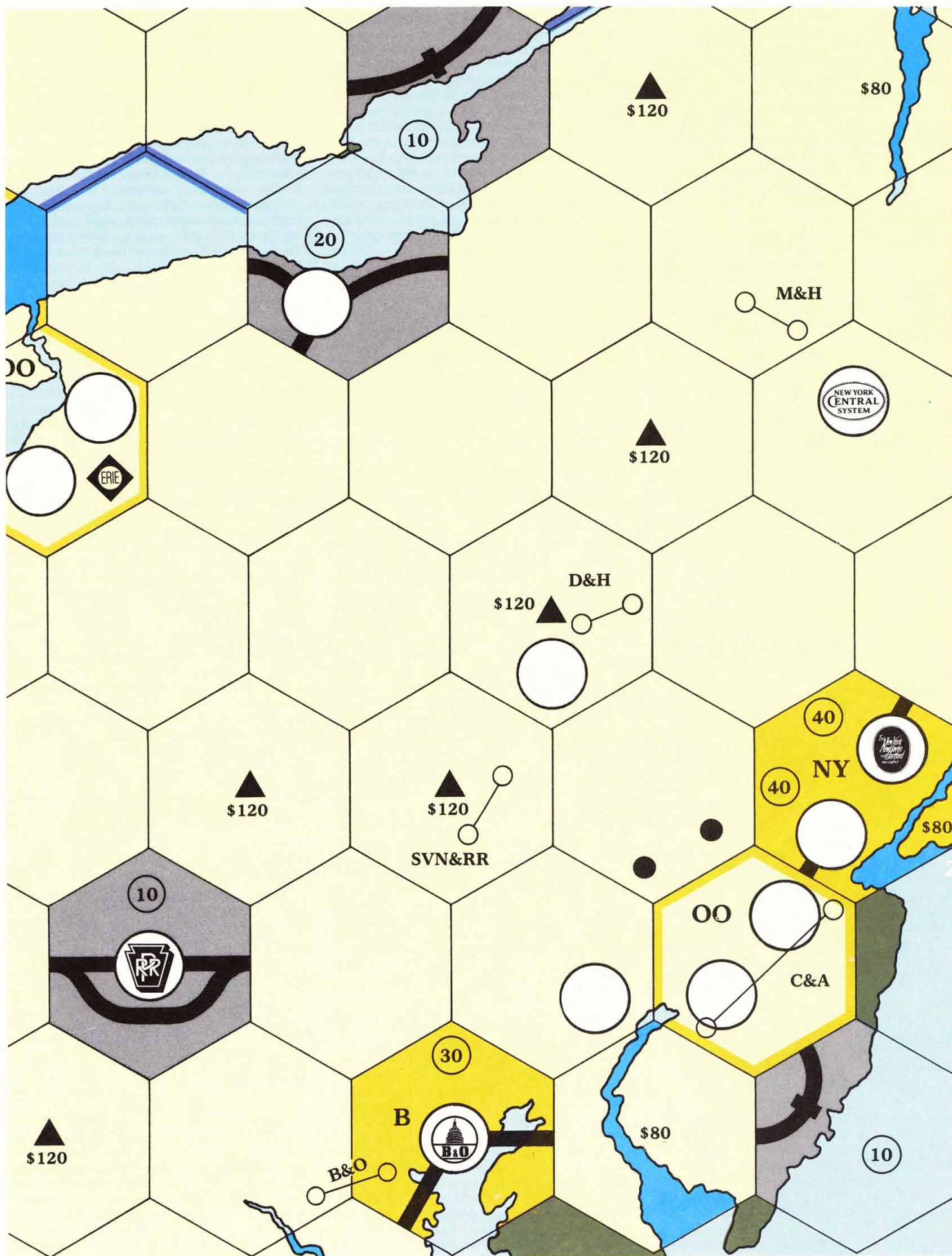
We also felt this was a good time to get some other opinions. I made up two playtest kits using Francis's rules and our map. I believe I also modified the stock market prices and possibly the order of the railroads. The games were sent to two friends, Gerald Lientz of Charlottesville, Virginia, and Steve Simmons of Woburn, Massachusetts. Gerald was a long-time member of the UVA game club and an excellent 1829 player. Steve was one of the people who had been playing 1829 when I first saw it in Michigan, and later had the pleasure of beating me twice in 1829 tournaments. I knew both Gerald and Steve had access to groups of experienced gamers, and were reliable. I was beginning to be concerned that the experiences and styles of play of the groups playing with Francis and myself were being unduly influenced by his and my personal participation. An outside playtest is normally conducted to look for bugs in a game after it is considered finished. In this case I was hopefully looking for support for our changes, and general opinions of the game. I believe I included descriptions of what had been changed as a point of reference. I was prepared for opinions in favor of Francis's ideas as well, and awaited the first reports.

The results of these playtests were mixed, and therefore did little to advance the game. Both groups enjoyed the game and played it often, but both found several parts of it unsatisfactory. I believe both were thinking like me, dominated by their experience with 1829. I was soon receiving lists of suggested changes from both, and both began playtesting using their own modifications. So, while the playtesters were generally enthusiastic, they weren't happy with either Francis's version or our modifications, and were busy designing a third and fourth version.

When news of these playtests and our unhappiness reached Francis he was understandably alarmed. Instead of writing, our next communication was by phone. I can't recall exactly how our conversation went, but the essential points were that we were unhappy with the game and could not recommend it in its current form. This was a real blow for Francis I'm sure, as he had believed the game was ready for production. But everyone who had played it in the States disagreed. At this point (late fall of 1984) 1830 was just about dead. Management was not happy with me because I had spent so much time on the game with nothing to show for it. I was not happy because this was the most interesting game project I had ever been involved with, and I had been looking forward to seeing it in print. Francis's disappointment needs no description.

In November I mailed to Francis a final list of our objections. The major problems in our opinion were the selling of private companies, the retirement of trains, and the economic and geographic incentives for unhistorical development of the railroads. As discussed earlier, the ability to sell a large private company for five times its listed price worked to destabilize the game. In its early stages, players not holding one of the big three (Mohawk & Hudson, B&O, and Camden & Amboy) would try and block the others from getting control of a corporation. This was generally impossible, and certainly not fun. Instead of offensively building an empire, we were concentrating on keeping someone else from gaining a big advantage.

The problems with the retirement of trains centered on the "4" trains. For their cost they appeared to be a bad bargain, often remaining in play for only a short time. Rapid retirement of the "4" trains occurred most often when five or six people were playing, because then the presidencies were more spread out. Most players could get only one. Train problems became more acute because players didn't have the luxury of manipulating the trains of two or more corporations for their mutual benefit.



I have already discussed what we didn't like about the map. While the playtesting was going on we experimented with a few additional ideas. One I liked was adding an additional row of hexes at the map's bottom. In this row we added the city of Richmond, placing there the base of the C&O. Several hexes west of Richmond in the new row we placed a city which was actually to represent the Virginia coalfields. With this configuration all railroads in the game started east of the Appalachian Mountains except the Erie, and the only gap in the mountain range was through central New York where the Erie Canal and New York Central were historically built.

We also experimented with new geography in the upstate New York area around the Erie base hex. We had found a lot of congestion there in play. Several surviving prototype maps show a number of configurations for what became hexes D-14 and E-11. None of these experiments were found to be an improvement over Francis's design so ours were abandoned.

Francis had asked me whether the game was salvageable and at the end of my November letter I replied yes, but added that changes would have to be made to make the game fun and interesting to enough people in Baltimore to convince myself and management. I felt that 1830 should be moved closer to 1829 in style of play, and gave examples of three radical suggestions that could be tried: remove the ability to sell private companies; add more trains, money, tile variations, railroads (to give the players more options and decisions in play); or remove the train purchasing requirement for a railroad with no train. I wanted to give the players more options to ponder, and eliminate some of the jarring game conditions that were difficult to foresee and plan for. I wanted to emphasize rewards for consistent good decision making.

Back with the November letter went the original 1830 prototype left with us at the Detroit Origins. I was certainly disappointed to see it go. Francis responded in late December and again in January saying that he would try a few more playtests. If nothing worked out he was going to consider a complete new design, perhaps on the entire United States or just the western railroads. He also mentioned he had seven additional railroad games in some stage of development! (To my knowledge and regret, none of these has yet been published in England.)

Several months now passed with no additional news. Sometime in the spring we received word from Francis that he believed he had revitalized 1830 and that he would be bringing a new prototype with him to Origins '85. He did not provide any details of what had been done, so we could only wait and see. When Francis and the new prototype arrived, we were pleased to find that the new game appeared to be substantially improved. The first days of the convention were spent in playtests and discussions. By Sunday we were sufficiently convinced of the success of the prototype that we took some time off to visit the B&O Railroad Museum. Again the game was left with us, and we were to continue playtesting. Assuming no more serious faults were found, we were hoping to publish 1830 at the next opportunity in our production schedule.

1830 was saved by several simple changes, most worked out by Francis and one, I believe, from myself. Francis's critical idea was to eliminate the strict order of appearance for each railroad, and to instead allow stock to be bought in any corporation. The consecutive order of appearance rule derived from his earlier games. By discarding this rule, 1830 was dramatically opened up as a game. Instead of focusing on minor decisions such as which tile to lay where, the player now focused on the major decisions of what railroads to begin. Once the private companies were sold, stock in all of the railroad corporations was available. To me, this offered the player the options I was looking for, and the

variety of combinations possible seemed to assure each game would be different.

A second change from Francis was a limit on the sale of private companies. Now they could be sold for a maximum of twice face value, and this seemed a good compromise. A sale for the maximum possible gain remained a dirty trick to the general loss of other stockholders, but it didn't necessarily wreck the buying railroad or vault the seller into a dominant position. Francis later felt even the double face value limit was too high, but we were happy with it and got our way. This new limit allowed some representation of the "sharp practice" that characterized early railroad building, but did not massively disrupt play as the old "five times" limit did.

Other changes from Francis dealt with the private companies. In the original versions only the big three companies had special features (basically the same they have now). Francis added the current features of the Champlain & St Lawrence and the Delaware & Hudson. These changes were an immediate success. We found these two private companies became attractive as they could be important assets to railroads operating in their area. The C&StL is valuable mainly to the Canadian Pacific, but the D&H can be used to materially benefit almost every railroad in the game. We found it especially helpful to the C&O, Erie, B&M, and New Haven. For some it offered a route out of the northeast toward the west, and for others it offered access into New York. The D&H became a very desirable property, and the objective of spirited bidding.

Francis also redesigned the stock market scale into its current format. We were pleased with this because we felt it brought the relative importance of stock value and cash (dividends) back into balance. It was no longer clearly more beneficial to drive up stock prices, or to ignore stock values and go for big trains and dividends. Each railroad had to be considered according to its situation. Diesels were only desirable for those corporations with good prospects for income.

My own contribution at this stage concerned the par price of railroad stock. (If this was not actually my idea, I apologize to the real originator.) In Francis' revised game, any stock could be bought, but the par price was already fixed (\$100 per share for the Pennsylvania RR, \$90 for the New York Central, etc.). I thought, why not let the purchaser of the president's certificate set his own price? This idea gave the players another tough decision, as the par price determined not only the per share price, but also the amount of capital the railroad would begin operating with. A player could tailor the par price to fit his objectives and his pocket book. The lower the price the easier it would be to find buyers for the stock and the quicker the railroad could begin operating. However, the lower the price the less money the new railroad would have in its beginning treasury. Higher priced stock generally made less relative share value increases over the course of the game. As I recall, this idea of variable par prices was accepted by all parties almost immediately and proved successful.

These changes were worked out during Origins and during continuing correspondence through the Fall. In this manner we arrived at the game as it now exists. Our other objections now either disappeared with the new rules or faded in importance in light of the game's success. We found it fun to play again, and the problems posed for successful play were challenging. Two old objections not specifically addressed were the retirement of the "4" trains and some of the game's geography and history. The "4" train problem still remains to some extent, but as the game appears to be much more stable than in its previous versions, we accepted this. In my experience, players anticipate problems with the last "4" train and plan accordingly. Our geographic and historic objections lost their importance once the game was found to work to our satis-

faction. As long as the previous versions were not successful, we pressed for having these historical and geographical changes incorporated as well. Now there was no need for change, and we compromised our objections.

From this point the story of making 1830 is an easy ride. I was given the "go ahead" by management in late 1985. It was my job to edit the rules based on Francis' manuscript and incorporate all the last minute modifications. With the help of our artist, Charlie Kibler, Francis' original art and graphic work was converted to finished art. I selected the locomotive pictures that appear on the private company cards and train cards, and tried to find locomotives that were historically appropriate. The layout of the game board was just one of many contributions from Mick Uhl. The box cover was based on my design and painted by Jim Talbot. 1830 finally came rolling off the presses in the spring of 1986.

My personal taste in games is for those that 1) reward skill and good decision-making, 2) offer many challenges and interesting decisions, and 3) have simple mechanics allowing players to concentrate on strategy, not the rules. I believe 1830 incorporates all three of my principles. The decision-making in 1830 centers on strategic problems, such as which railroad to start or invest in, and at what price. The tile play is somewhat restricted compared to Francis' earlier games, both to keep the game short and to keep the number of components down. But this is more than made up for by the strategic decisions that are required. The lurking specter of bankruptcy (absent in some earlier games) and the potential for dirty tricks add a nice element of uncertainty and danger. Various new rules for stock price movements give the stock market a large role. Stocks are continuously bought and sold, changing each player's fortunes.

Despite the difficulties we encountered in bringing 1830 about, I am very proud of having contributed in some way to its creation. I think it is an excellent game, and it remains one of my favorites. Judging from the comments of those of you who have written us concerning 1830, you agree with me. With your continued support, I hope we can bring you more interesting games of this sort in the future.



THE PRIVATE COMPANIES AND RAILROADS OF 1830

What follows is a brief discussion of each private company and railroad in 1830. These are my opinions and I would not be surprised to find that other players disagree with me. Perhaps the discussion of each will be most valuable to new players with no previous basis for opinion. I have rated the railroads for suitability in two categories: one being one of the initial railroads started; and two, operating a Diesel Train profitably. An "A" is the highest rating, "C" the lowest. I also note which other railroads make good complements when run by the same player.

Private Companies:

Schuylkill Valley Navigation & Railroad: The SVN&RR is nothing special but is better than having no private company. I pass on this at my first opportunity and bid on something more desirable. If I'm offered it again, I usually buy it. This company pays the highest relative return and can probably be sold for \$40 later in the game to one of your railroads.

Champlain & St. Lawrence: The C&SL matches up very nicely with the Canadian Pacific, but has

little value to any other railroad. If you plan to run the CP buy the C&SL. Or, if you end up with the C&SL, consider trying to float the CP (get 60% of the stock bought by yourself and/or other players so it will begin operating) in the first stock round. Again, I usually pass on this company at my first opportunity in order to bid on something better. I never pass it on my second opportunity. It pays the same relative return as the SVN&RR, with the added value to a CP president, and can be sold for up to \$80 with little pain to the buying railroad.

Delaware & Hudson: The D&H is perhaps the most interesting private company due to its special feature. By buying it, any railroad can set up a separate railroad in the D&H hex and should obtain access into or out of New York. This feature should be especially valuable to presidents of the C&O, Erie, B&M and New Haven. Your railroad probably won't be able to afford paying \$140 for it, but \$70 to \$100 is possible. There are usually two or more bids for this company, and anything less than \$100 is probably a fair price.

Mohawk & Hudson: The M&H is the least valuable of the big three, and possibly less valuable than the D&H. I will probably buy it if it is available but I don't recall bidding on it. The owner of the M&H has a tough decision because the development of the New York Central can't go too far without access to hex D-18. So if the owner plans on running the NYC well, he will probably have to forego the M&H revenue. I normally trade the M&H certificate for an NYC share just before I need to lay a tile in D-18, but selling the M&H has its attractions as well. Another option is to develop the NYC without incorporating hex D-18 and try and keep the revenue coming in as long as possible. Later in the game look to trade the M&H for an NYC share in the Bank Pool or any remaining in the initial offering.

Camden & Amboy: In my opinion, the C&A is the most valuable private company. Besides the fact that it pays a good revenue and can be sold for up to \$320, the icing on the cake is the free share of Pennsylvania RR stock. Some day I mean to record the return value of this free share by adding up the dividends it earns plus its final value. This company is normally the object of spirited bidding so if you ever have the opportunity to buy it at face value, don't hesitate. The C&A usually goes for \$175 or more in my experience, and I don't think \$200 is too high, though I've never seen it sell for that much. Selling the C&A to a railroad you control for \$320 and then selling out so that someone else can try and pick up the pieces is the second most nasty ploy possible in 1830. If you hold more than one share in a railroad controlled by the owner of the C&A be careful of where the priority deal card ends at the end of a stock round, or better yet, never own more than one share in this player's railroads.

Baltimore & Ohio: I normally don't bid on the B&O, but will buy it at face value given the chance. Standard play in my experience has been to set the par price of B&O stock at \$100 to discourage early investment, and then sit back collecting \$30 per operating phase. The B&O Railroad is then started at your leisure, having recouped much of your investment. Unfortunately, other players often will force your hand by buying at least four shares of the stock in the first stock round. This will force you to close the private company, cutting off the revenue. The B&O has a lot of potential, so an early start is not a disaster. Since my heart is for an early start and good development of the B&O (my favorite real world railroad), but my mind says collect the revenue now and run the B&O later, I usually am content to let someone else make the decision.

Railroad Corporations:

PENNSYLVANIA RR (starting railroad—B, diesel—A, complements—C&O, B&O): I don't like to get the PRR running right away because its

opportunities for earning revenue are less than other railroads. It is handicapped by its base with a revenue of "10", and the restricted development possible when only yellow tiles are available. However, in the middle and end games, the PRR is ideally situated to build a long and lucrative diesel route from New York to Chicago. A nice "6" Train route is also possible—Chicago, H-4, H-10, H-16, H-18, New York. You will probably need to place tokens in H-10 and H-16, and possibly H-18 if you can't negotiate to keep this tile open. Control of either the C&O or the B&O as well as the PRR can be a very strong position.

NEW YORK CENTRAL (starting railroad—B, diesel—A, complements—CP, Erie, NYNH&H): I don't buy the presidency of NYC unless I own the M&H private company; and I don't like to start the NYC right away because in my experience it earns too little revenue. However, to realize the NYC's full potential of running to Chicago an early start is very helpful. It is possible for the NYC to earn a good income early by ignoring New York and instead build to Boston along the coast of Long Island Sound. Another advantage of this route is it delays the need for access to hex D-18. The disadvantage of this development is it may preclude the western expansion necessary to support a diesel. The NYC has good prospects for later development and can reach Chicago by several routes. However, to reach Chicago the NYC will have to build a lot of track. Getting control of the Erie or CP can greatly help the NYC expand. The NYC will probably need to place tokens in New York and D-14, and possibly D-10 if headed west that way.

CANADIAN PACIFIC (starting railroad—A, diesel—B, complements—NYC, Erie): I have had a lot of success starting the CP right away, especially when I hold the C&SL private company. It is then possible to quickly get two "2" trains and a "3" train running very lucratively. I usually plan for a "5" or "6" train and content myself with running the railroad for dividends thereafter and driving the stock value to the top of the chart. The high value of the CP's base is big asset in this regard. If the NYC is late in getting started, the CP has the potential to build south to E-19. Place a token here as soon as possible and thereby gain access to New York. Not only does this help the CP, but it will hurt another railroad which would otherwise have expected to occupy that strategic position (probably the NYNH&H or B&M). A more ambitious plan for the CP is to build for Chicago north of the lakes in anticipation of running a diesel. For this to succeed you will probably need the help of second railroad. I have rarely seen CP development make a diesel worthwhile.

BALTIMORE & OHIO (starting railroad—A, diesel—A, complements—C&O, PRR): The B&O is a very solid railroad capable of earning a lot of money. It is the only railroad that may trace a route through Baltimore, an ability that gives it unique flexibility when operating a Diesel train in the Middle Atlantic area. I believe the highest revenue I have ever seen scored was for a B&O Diesel. The high value of its base (compared to the PRR for example) also gives it an advantage when just beginning. If I own the B&O private company I prefer to delay the start of the railroad and collect some private company revenue. Much of the track the B&O will be using later on will be built by the C&O and/or PRR. If I don't have the B&O private company, I'm usually willing to buy a share or two of B&O stock to get it going early and force the closing of the private company. The B&O can set up good routes for any train, but the president should be planning to run a Diesel. Successfully running the B&O requires some negotiation skill, as at least two other railroads (the C&O and PRR) will be wanting to use much of the same route. The B&O will probably want to run through H-10, H-16 and H-18, and can't place tokens in all of them.

CHESAPEAKE & OHIO (starting railroad—A, diesel—B, complements—B&O, PRR): Possibly the best railroad in the game, the C&O is almost always one of the first railroads started. It can quickly earn high dividends and with decent management can keep earning them all game. Its consistently high revenues mean its stock value should be high as it won't have to forego dividends as often as other railroads might. Compared to most other railroads, it should have relatively less trouble financing trains. Although I only rate it "B" for diesel suitability, it would rate "A" if the C&O president also controls the B&O or PRR. I rate it a "B" because it doesn't have easy access to New York from either the north or the south, and doesn't have the flexibility around Baltimore that the B&O does. Consequently I don't think it can expect to earn the revenue that the PRR and B&O may. I look to run the C&O from Chicago to New York (south), but New York (north) is a possibility through control of the D&H private company. First track is usually built towards the Gulf or Chicago, and both offer interesting possibilities. Careful negotiations will be needed to keep open C&O routes, as it will be competing with the B&O and PRR for routes and can only place two tokens outside of Cleveland.

ERIE (starting railroad—C, diesel—C, complements—NYC, CP): The Erie is seriously handicapped because it may not place any tiles until the first "3" has been bought. Because of this and the attraction of other railroads, the Erie is tough to get going. Often the president will find it necessary to buy 60% of the stock himself. I have seen the Erie end up with the most valuable share price and be the largest holding of a winning portfolio, but I don't expect that to happen often. It is possible to make the Erie work well, but it is not easy. Once started the Erie has one strong point, its base is a 40-point city. If it can be floated early, the Erie has the potential to make money and grow. It can especially benefit from owning the D&H private company and placing a token in E-16 to gain access to New York. I usually see the Erie working its way into the double city at D-10 and from there connecting to CP track to western Canada or Montreal.

NEW YORK, NEW HAVEN & HARTFORD (starting railroad—A, diesel—C, complements—NYC, B&M): The NYNH&H can make money quickly by building track to Boston along the coast of Long Island Sound and placing a token in the city in hex F-22 as soon as possible. It may then operate two "2" trains and a "3" train for a good revenue. As part of this plan, I bring out the NYNH&H at a fairly low price, \$67 or \$71. This is enough capital to buy my trains, tokens, and cross the river in hex F-22, and the shares should sell well. If all ten shares are bought, you should have a nice gain in their value within a few turns. The high revenue means not only high dividends, but it is possible to quickly rebuild the treasury to finance future train needs. I look to run this railroad ultimately with a "5" Train and, if it starts early, it should have one of the highest stock values. A more ambitious plan for the NYNH&H is difficult to implement because of two major handicaps, its lack of tokens (only one may be placed outside New York) and the competition from other railroads in the congested northeast.

BOSTON & MAINE (starting railroad—A, diesel—C, complements—NYC, NYNH&H): Most of the above comments for the NYNH&H apply as well to the B&M with a few provisos. First, I consider the B&M the lesser railroad of the two because of its base in Boston, versus the other base in New York. New York has better long term prospects for development of a rail net than is offered by Boston, which is blocked on two sides by mountains. Second, the B&M is only an "A" as a starting railroad if the NYNH&H isn't started. I don't think that both can simultaneously pursue the same plan with success, and I would bet on the B&M being the loser. As in the real world, people's perceptions

greatly influence the decision of what stocks to buy. The B&M is perceived as a weak sister to the NYNH&H, making it difficult to convince other players to buy and hold the stock. The B&M serves best as second or third presidency for a player already controlling one of the northeastern railroads. I don't recall it ever being the most valuable holding in a winning portfolio.



PLAYER'S NOTES

Elsewhere in this issue is "All Aboard" by Ed Fahrmeier, a member of the nearby game group *WARTHOG* (Washington Area Retinue of Tacitly Highly Organized Gamers). Along with many other achievements, Ed has been awarded the title "Dr. ChooChoo" in recognition of his skill in playing railroad games. I understand he rarely fails to win a game of *1830*, an enviable record within his group of very competent game players.

I mention Ed and his record as evidence that *1830* rewards skillful play. He apparently has the ability to consistently make correct decisions about his stock purchases and railroad operations. Despite the fact that *1830* has no dice, random events, or similar mechanics (the only random element is the seating order for the players), while playing there is a tendency when things go wrong to claim bad luck. The reckless player can find himself suddenly president of a railroad with an empty treasury and nearly obsolete equipment, or have to dig deep into his own pockets to finance train purchases. Ed's consistent success is evidence that it is possible to manage and build a valuable portfolio of railroads and stocks while avoiding the disasters that can trap the unwary. In the following player's notes I have listed a number of principles to follow and tactics to employ while playing *1830*. They will be most helpful to new and inexperienced players, but even old hands may find a helpful idea.

HAVE A PLAN: Many of the more important decisions you will have to make when playing *1830* are made as the game is just beginning. Specifically, you will need to decide what private companies you would like to own and how much you are willing to pay. After that, and assuming you have enough cash remaining, you will need to decide which railroad to invest in during the first stock round. Since you can't know for certain which private companies you will end up with, planners must prepare for several contingencies. Decide whether you will start the Canadian Pacific right away if you get the C&SL. Decide whether or not to start the NYC if you get the M&H. Decide where you will set the par price of the B&O if you get the B&O private company. Look upon the private companies as the starting hand you are dealt with. Before you begin play have a plan as to which railroad you would like to start, or how to otherwise invest your money, based on what "cards" you are dealt.

BUY A PRIVATE COMPANY: Always try and buy at least one private company. I rate the Private Companies in order of desirability as follows: 1) Camden & Amboy; 2) Delaware & Hudson; 3) Baltimore & Ohio; 4) Mohawk & Hudson; 5) Champlain & St Lawrence; and 6) Schuylkill Valley. The D&H is not as desirable if you don't plan to use it to help a railroad. The B&O is not as desirable if the B&O railroad is floated immediately. I generally only bid on the C&A or D&H. For their cost, any private company is a good investment and a player without one begins at a disadvantage.

WHICH RAILROAD TO START: I rate the railroads in order of preference as follows: 1) C&O; 2) B&O; 3) CP; 4) PRR; 5) NYC; 6) NYNH&H; 7) Erie; and 8) B&M. This list would

change according to what railroads you already control, what railroads your opponents control, what private companies you own, and at what stage the game is in. If the game is just beginning, you don't want to try and start the Erie. If you own the C&SL, that is an incentive to start the CP. In the first stock round it will probably be easier to entice investors to buy NYNH&H stock rather than PRR or NYC stock, even though the second two railroads have better long-term prospects.

PAR PRICES: When you are about to purchase the president's certificate of a new railroad, the par price should be determined by three factors: how much cash you have and thus how many shares you can afford to buy; how much capital you think the railroad needs; and how many shares you will need other players to buy. You want to buy as many shares as you can to make it easier to keep your presidency and to make it worthwhile to run your company well. Capital requirements are difficult to assess, but as a general rule, I believe the later a railroad starts, the more capital it will need. The earlier a railroad starts, the easier it is to manage with less capital. The lower the par price, the more attractive the stock will be to other players. I generally start companies at \$71-\$82 in the early and middle game, and at \$100 in the end game.

RUN A RAILROAD: In order to have a chance at winning, you must be the president of at least one railroad. I have never seen a player win who wasn't. Besides the fun of operating a railroad and the control over the destiny of the railroad's stock, the president's certificate represents two shares of stock. Assume two players each hold 16 certificates, but one has three presidencies and the other holds only one. In this case one player would actually have 19 shares of stock paying dividends and increasing in value while the other had only 17 shares. Other things being equal, the player with two additional shares would be expected to beat the second player. Getting control of a railroad has the obvious additional benefit of denying the presidency to another player, especially one who stands to gain by controlling more than one railroad in a region. For example, control over any two of the B&O, C&O or PRR, is a strong position as the two can work together to build and keep open lucrative train routes. When considering the purchase of a presidency look to obtain such combinations or to deny them to others.

KEEP FULLY INVESTED: It is important to quickly get your money working. Cash in your hand does not earn interest, and can only increase your wealth by being invested in shares that grow in value and pay dividends. At the end of a typical game the cash and stock values of player holdings will be worth around \$25000 to \$30000. This means each \$1 of the \$2400 distributed to the players at the start will grow to \$10 to \$12. If you have enough cash on hand to buy a share of stock in an operating company, it is generally wise to buy. You can often measure how you are doing in the game by comparing the number of shares (not certificates) of operating railroads you hold to the number held by others. If you hold several shares less than another player you are probably not winning.

DIVERSIFY YOUR PORTFOLIO: Your portfolio is your holdings of stock certificates. It is a mistake to only hold stocks in railroads you run. While it may be dangerous to hold more than one share in a competitor's railroad, there is little risk in holding only one. An ideal portfolio would consist of 4-6 shares in each railroad you control and one share in each other railroad. In some cases holding more than one share will be desirable and in others you won't want any stock at all. Being able to distinguish these cases comes with experience. The strength of diversification is the spreading of risk and the fact that usually one stock or another will be paying dividends and giving you some income. If you are holding only your own shares,

there may be times when you won't pay dividends and thus won't have any income. Too, holding shares in other railroads gives you stock market flexibility. Often you won't want to sell your own shares if they are overpriced since in the long run holding the presidency is so important. But you can buy and sell stock in other railroads as you see fit. Remember that selling shares reduces their market value, and moving in and out of several different railroads in one stock round drives down the value of all you sell.

AVOID UNWANTED PRESIDENCIES: You don't want to be given the presidency of a railroad with no train, or one in otherwise poor condition, because you may find yourself called upon to spend your own money to buy that railroad a train. This can cause your bankruptcy, or at least knock you down in the final standings. You can be given such a presidency when you are holding two or more shares in the railroad and the previous president sells enough shares to leave you as the current largest shareholder. There are two ways to prevent this. The easiest is to never hold more than one share (10%) of a railroad of which you are not the president. If no other player holds two or more shares, the presidency cannot be transferred.

The second way to avoid an unwanted presidency is less certain. For this method you must watch the position of the priority deal card and never allow the current president to be in a position to trade before you. As long as you will have an opportunity to buy or sell before the current president, you can sell down to only one share or less. If it looks like the priority deal card will end in a bad position, sell out your stock rather than take the risk. If the current president of the railroad you are concerned about buys immediately after you in order, then you will be safe so long as you are not the last player to buy or sell.

WATCH THE PRIORITY DEAL CARD: Ideally you want to always be the holder of the priority deal card. In this position you can never be stuck with the presidency of a crippled railroad and you have the first opportunity to buy or sell stock. You don't want to be the last person to buy or sell in a stock round if you can avoid it. It is sometimes preferable to pass on buying one more share and instead sit on your cash temporarily to keep the priority deal card in a more favorable position for the next stock round. Holding the priority deal card can be a strong temptation to pull a dirty trick and a dump a presidency. (I rarely yield to this temptation as I think every railroad in the game can be profitably managed. I have also seen players turn supposedly crippled railroads into valuable assets. If you are tempted to dump a railroad on someone else, be as certain as you can that this is a good move. Presidencies are very valuable assets and you shouldn't give one away without good reason.)

PLOY #1—SELLING TRAINS: When one player gets control of at least two presidencies, the ability to buy trains from each other often makes each railroad stronger. Such railroads are more flexible and efficient in keeping adequate trains on hand. Other players must be aware in this situation that the capability also exists to loot one railroad to the benefit of another. This is simply done by railroad A buying, say, a "4" train from the bank, and then having railroad B buy the same "4" train from A for \$1. This is usually only worth considering if you plan to get out of control of a railroad and if the priority deal card is positioned such that by your stock sales you will be guaranteed to force the presidency on to another player. To my mind the nastiest ploy possible in *1830* is to buy away a railroad's only train and then force the presidency on another player when his only option is to buy a Diesel out of his own cash.

Selling trains can be useful when you are operating a "feeder line" (see #14 below) and using it to buy trains which are then bought by another of

your railroads. I have also seen trains sold between railroads when a player judges that railroad A's train would be more useful with railroad B, either because railroad B has a better route, or because he has more stock in railroad B.

PLOY #2—SELLING PRIVATE COMPANIES: Selling a private company to a railroad can be beneficial to the player, the railroad, or both, depending on the price, the time of the sale and any special attribute that may accrue to the railroad. If the sale occurs soon after the purchase of the first "3" train, and if the price is reasonable (around face value), and if the railroad derives some real benefit from the acquisition (access to a certain hex, for instance), then the sale can't be considered a ploy, but rather good business. An early sale at a reasonable price means the railroad will be able to recover much of the cost before the private company is closed down. However, a late sale or a sale at a high price is a definite ploy, as the player has substantially enriched himself at the expense of other stockholders. As you play *1830* you must keep aware of the potential for yourself and other players to sell a private company. The larger the company the greater the temptation for "sharp practice." Never put yourself in a position to suddenly be running a railroad that has just bought the Camden & Amboy for \$320. I rarely find a good reason to pull off this kind of ploy, as I have found that selling a company at a fair price early derives a sufficient benefit to the player and gives the railroad time to recover most of its expense. But I like having the possibility present because it adds a nice bit of uncertainty to the game.

PLOY #3—SELLING STOCK: You can improve your position in a game by judiciously selling shares in another player's railroad and driving down its value. Consider the situation where the player you consider your closest competitor holds six shares of stock in a railroad in which you also hold two shares. The share price is \$275 and is marked in the top row of the Stock Market. You anticipate the game will continue only three more operating rounds so you sell your two shares for \$275 each, driving the price down to \$200 per share. Assuming both shares are bought by other players and the railroad pays dividends in each of the remaining three operating phases, the maximum share value the stock can reach by the game's end is \$300. Without your sales (and no other sales) the share value would have reached \$350. By selling you have cost your competitor \$300 (or \$420 if both shares are not bought by other players). You will have lost \$25 per share in stock value increase (\$275 to \$300) plus the dividends you didn't collect. Assuming that shares in other railroads were available to buy you will recoup some, if not all, of your losses, and should have improved your chances of winning relative to the player whose stock you sold. In order to make this ploy work you must hold at least two shares of the stock you wish to drive down, and there must be other shares available to buy.

DON'T UNDERESTIMATE STOCK VALUE: A common error among new players is to overestimate the importance of earning large dividends and having Diesel trains running on as many railroads as possible. I have heard of games where all stock values are very low when the game ends, as every railroad continually passed its dividend to build up its treasury to pay for larger trains. As long as everyone in the game is thinking similarly there is nothing wrong with this strategy, but I have found that several railroads are not suited for operating a Diesel and can do very nicely with a "5" or "6" train. Once a suitable train has been purchased, let these railroads pay dividends continually instead of trying to raise additional capital for other railroads you control. A railroad whose share price is over \$300 and pays a \$25 dividend per operating round will do more to win the game for you than a railroad with a \$100 value that finally manages to pay

a dividend of \$50 per share, but only for the last three operating rounds. There is only \$12000 cash in the bank, and when all five Diesels are operating (plus all the "5" and "6" trains) that \$12000 will be drained out of the bank in no more than six operating rounds, possibly in only three. If one or more railroads have taken a more conservative approach and have been operating with a smaller train and driving up their share prices while the others have been forcing their share prices down to finance bigger trains, the players holding a majority of the high value shares will be better off. The routes required to make a Diesel tremendously profitable are also susceptible to being blocked by tokens from competitors, undoing any advantage that may have been gained. From my experience you will need a balance of shares paying a high dividend (usually those from railroads operating a Diesel) and shares with a high value. Having a portfolio heavy in shares of one type or the other will not beat a more balanced holding.

THE FEEDER LINE: This is a name I use for a railroad whose stock price is in the Yellow zone or worse on the Stock Market. While normally not desirable, some benefits can be derived from this situation. By paying out dividends only occasionally, the share price can be kept in the colored zone, and the money paid into the treasury can be used to not only keep the railroad going, but also to place tiles in mountain or river hexes, or to buy additional trains to be bought thereafter by other railroads you control. While in the colored zones, the shares in this railroad do not count towards the limit of certificates you are allowed to hold. For example, in a four-player game where you could normally hold only 16 certificates, you could hold not only the 16 allowed, but an additional six in the feeder line (or more if the price is in the orange or brown zone). By carefully manipulating the price, the share values can be kept in a colored zone until near the end of the game. When the final operating phases are taking place, pay dividends to earn your maximum return because the position of the share price no longer matters.

I call this ploy the "feeder line" because it feeds cash or other assets into your other railroads. I would not deliberately set out to make a railroad a feeder line, but I understand that in some groups it is done regularly. The creation of a feeder line more often is the result of a ploy dumping a crippled railroad into another player's hands. Seeing no immediate way of restoring the railroad to its former value and soundness, the new president converts it to a feeder line. The value of a feeder line is diminished if you can't otherwise fill out your portfolio, or if for various reasons you can't use it to significantly benefit other railroads.

SWALLOWING THE PILL: Since I first started playing *1830*, to be stuck buying a train or a substantial part of one out of your own pocket has been considered a serious, if not a terminal, setback to your chances of winning. I have since heard of several instances where players have done so deliberately and have gone on to win. Their strategy is to continually drive up their share prices and maximize the dividends they pay out. The money they lose out of pocket to pay for a train is apparently more than made up for in higher share values, and they ultimately get the larger train as well. I have never taken part in a game where this has been done successfully, but no less an authority than Francis Tresham assures me that it is quite possible and he credits one of his best playtesters with its conception. It may be that the "swallowing the pill" strategy, like the "big train" or "feeder line" strategies, only works so long as the other players let you get away with it or give you the opportunity. I still believe in the "balanced portfolio" strategy, but will be looking at this new idea in the future. There is always something new to learn in a game as elegant as this.

KNOW YOUR COMPETITORS: This principle is not a revelation to game players, but *1830* can reward players who can accurately predict how others in the game are going to proceed. I have found that one type of player, whom I call the "empire builder," can be counted on to make one railroad he controls the jewel of his portfolio and will strive continuously to make this railroad successful. If you can identify this railroad or predict which it will be, you can safely buy as many shares of it as you wish and ride his coattails. This player would rather accept defeat than willingly admit he did a bad job and dump it. Another player I see a lot of is the "trickster." This player gets his kicks from the various plays he can pull off, and probably figures (correctly) that he has no chance in an orderly game where the premium will be on patience and planning. He attempts to create as much chaos and uncertainty as possible. Nothing makes this player happier than buying the first "4" train (usually when he has no use for it) just to force the retirement of all "2" trains. Never buy more than one share of a railroad the trickster controls, but be aware that his ploys can still affect you indirectly. Every game should have at least one trickster to add a little uncertainty.



CONVENTION CALENDAR

The *GENERAL* will list any gaming convention in this space free of charge on a space available basis provided that we are notified at least four months in advance of the convention date. Each listing must include the name, date, site, and contact address of the convention. Additional information of interest to our readership such as tournaments or events utilizing The Avalon Hill Game Company's games is solicited and will be printed if made available.

The Avalon Hill Game Company does not necessarily attend or endorse these gatherings, nor do we guarantee that events using The Avalon Hill Game Company's games will be held. Readers are urged to contact the listed sources for further information before making plans to attend.

AUGUST 22-23

SL RALLY—SOUTH, Conway, Arkansas

Contact: On All Fronts, P.O. Box 265, Marshall, AR 72650.

Note: Third national tournament with levels from SL through ASL.

SEPTEMBER 4-7

ONTARIO ASL FALL MANEUVERS, Oshawa, Ontario

Contact: Gord Reid, 66 Westmount Street, Oshawa L1J 4X3, Ontario, CANADA.

SEPTEMBER 4-7

WINGAMES VIII, Winnipeg, Manitoba

Contact: Oliver Bernuetz, P.O. 80, University Center, University of Manitoba, Winnipeg R3T 2N2, Manitoba, CANADA.

SEPTEMBER 5-6

GOLD-CON, Coconut Creek, Florida

Contact: John Dunn, BCC North Library, 1000 Coconut Creek Blvd., Coconut Creek, FL 33066.

OCTOBER 16-18

ASL OKTOBERFEST II, Youngstown, Ohio

Contact: Bill Conner, P.O. Box 4114, Youngstown, OH 44515. (216) 799-1548.

Note: Seminars and tournaments for beginners and experts in SL/ASL.

OCTOBER 16-18

RUDICON 3, Rochester, New York

Contact: Steve Ritau, c/o Student Directorate, One Lomb Memorial Drive, Rochester, NY 14623.

OCTOBER 24-25

NOWS CON '87, Cleveland, Ohio

Contact: John Hartman, 1081 Rosalie Avenue, Lakewood, OH 44107. (216) 226-5539.

TAKE A RIDE ON THE READING

Variants for 1830

By Alan R. Moon









This is the first time Mr. Moon's work has graced these pages since he left The Avalon Hill Game Company in 1983. Since then, he has relocated to Massachusetts, has married, and now does free-lance game design and consulting.

I first played *1830* in the summer of 1983 at the Detroit Origins. The Tresham brothers had brought the game over for Bruce Shelley and Tom Shaw to look over for possible publication by The Avalon Hill Game Company. We played several games of the original version that weekend, and while the game had some great ideas and a lot of potential, it just didn't quite work right. Still, a contract was negotiated and Bruce began work on the development. Three years and many versions later, the game became a reality. Was it worth the wait? Well, would I be writing my first article in over four years if it wasn't?

The biggest problem in the original design was the seeming inevitability that every game would end with one player going bankrupt, rather than the game ending with the bank exhausted. It is certainly still possible for the game to end in bankruptcy, but it is unlikely. Outfoxing a player on the stock market, the type of action that used to spell doom for that player, now usually just ruins his chances of winning instead.

Of course, there have been numerous changes in the game since 1983, but since I was not directly involved in the playtest, I am not the best person to describe them. Perhaps Bruce will volunteer some day. What I do have to offer is a variant for the game which consists of changing a few hexes and tiles, and adding a ninth company.

After you've played five to ten games of *1830*, you will have probably been president of each of the eight corporations in the game. At this point, you have also probably figured out all the best tile combinations and possible stock manipulations. For some people, the game is then "learned" and there is not enough variety and incentive to play it much more. Others, however, will go on in an attempt to master the game, rather than just "know" it. I think this variant offers something for both types of players. The "Reading" variant adds some variety to the game. It also places a premium on player decisions involving the purchase of diesels, since they are now slightly cheaper and probably even more valuable, especially if you prolong the game by adding the extra \$8000 I suggest.

| | |
|--|--|
|  Reading Railroad PRESIDENT 3 SHARES 30% |  Reading Railroad 1 SHARE 10% |
|  Reading Railroad 1 SHARE 10% |  Reading Railroad 1 SHARE 10% |
|  Reading Railroad 1 SHARE 10% |  Reading Railroad 1 SHARE 10% |
|  Reading Railroad 1 SHARE 10% |  Reading Railroad 1 SHARE 10% |

The *Reading*, like all the corporations, has definite advantages and disadvantages. Its major drawback is the number of tokens, allowing it to place only one station besides its home base. This will make the placement of this station extremely crucial because of the almost certain competition with the *B&O*, *PA* and *C&O* over the same routes. The main advantage lies in the president's triple-share certificate. Perhaps the best way to run this corporation is to bring it on late in the game and set the price at \$100. With the \$1000 the company receives as operating funds, it will be able to buy a diesel and place the extra station, and run for cash each turn.

The proposed tile changes make the southeast section of the mapboard a hotbed of activity instead of confining it to simply *B&O* runs. In addition, there will be fierce competition for Boston and more chances for the *B&M* to expand to the north and northwest, and more chance for the *CP* to build southeast to New York City.

The new rules regarding obsolete trains are to ease the pain of the player who buys a new engine one turn before it becomes obsolete. Now he at least gets one turn to use it and can get some of his money back. This also gives each player a chance for the trade-in for a diesel.

Taking A Ride

1. The *Reading* is added as a ninth railroad for purchase.

a. The *Reading*'s base hex is H14. This hex is now a permanent grey hex (as shown on the New Tiles Chart). All routes may be traced through this hex; the *Reading* base station does not prevent a route being traced through this hex. Any corporation may begin or end their route by counting the *Reading* station as in the normal rules of play, but only the *Reading* itself can count the base station as an intermediary stop on a run.

b. The *Reading* President's Certificate is a 30% share. (Note that this modifies several rules, especially 13.0.)

c. The *Reading* has two tokens.

2. The *Pennsylvania*'s base hex, H12, is changed to a different permanent grey hex, similar to the *Reading*'s base hex, as shown on the New Tiles Chart. All the rules in 1.a. now apply to this hex as well.

3. Baltimore and Boston have different green and brown tiles. Grey tiles K15 and D24, and the red section for the Deep South (K13) are also changed. Consult the accompanying New Tiles Chart.

4. Train Changes:

a. Add one more "4" train.

b. Use the Optional "6" train.

c. Diesels now cost \$750 with a trade-in engine, or \$900 without.

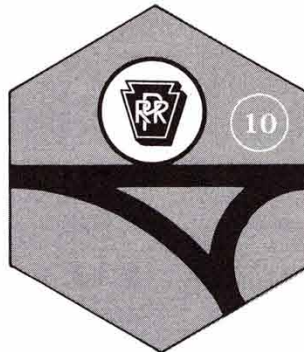
d. Trains that become obsolete are not removed until *after* the owning corporation's next operating turn. For example: Player A buys the first "4" train making all "2" trains obsolete; Player B, who owns a "2" train, does not have to remove it until after his next operating turn. And if Player A owns a "2" train, he would not have to remove it until after his next turn of operation.

5. The player who buys the *Camden & Amboy* private company now has a choice of taking a share of either the *Pennsylvania* or of the *Reading*.

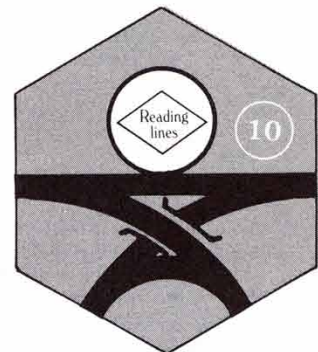
6. Increase the number of certificates each player can hold by one, regardless of the number of players in the game.

7. Optional Rule: add \$8000 to the game bank. This will guarantee at least three more operating rounds in the game and will make the decision of whether to buy a diesel more important.

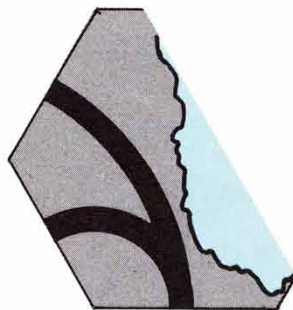
NEW TILES CHART



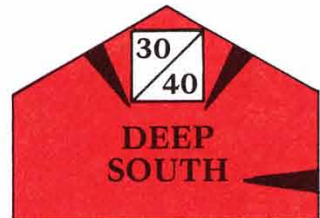
Hex H12, Pennsylvania Base (Grey)



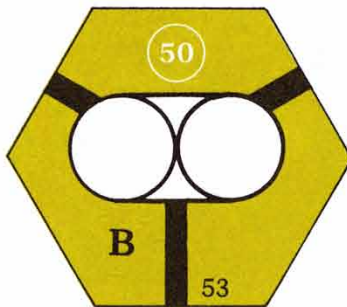
Hex H14, Reading Base (Grey)



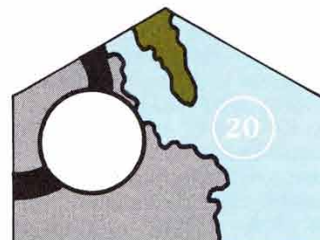
Hex D24 (Grey)



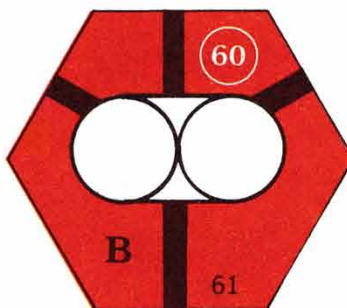
Hex K13, Deep South (Red)



Baltimore/Boston Tile (Green)

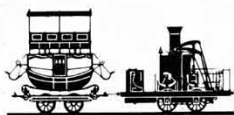


Hex K15 (Grey)



Baltimore/Boston Tile (Brown)

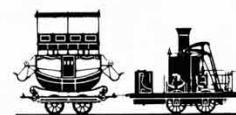




ALL ABOARD

A Ride on the 1830 Express

By Edward Fahrmeier



Here's the pitch—*1830* is a great railroad game. It isn't really similar to any other game (except *1829*, its English cousin); it is well-designed and it has many interesting features. It is one of the best games around for four to six players in which opportunities to win are present throughout much of the game, even for players who make mistakes in the early stages of the game. Experience and skill allow good players to recognize and seize opportunities that aren't always available in the beginning. *1830* is also one of the best multi-player games in that "gang-ing up" on the leader to prevent a win is relatively difficult to engineer. And solid alliances with other players aren't usually necessary to enjoy the game.

There are alliances between players or between corporations, and there are some economic struggles; but because of the interlocking character of ownership of the corporations, it is seldom possible to make moves that benefit only one player at the expense of all the rest. More typically, the long term benefits and costs to each player of each move are difficult to predict in such a complicated economic environment. The first-time player, however, is at a disadvantage among experienced players simply because the "old hands" have an improved sense of recognizing the opportunities. Chance is involved only in the determination of the arrangement of players for the share dealing phases of the game. (An experienced player might have some advantage in being placed to deal immediately after a novice, who is more likely to buy and sell the wrong stocks; likewise, a novice player is disadvantaged by dealing immediately after an experienced player since fewer "good deals" will be available.)

This game has a nice "feel" to it. Careful planning and analysis pay off, yet there is enough variety spawned by the various players' actions to present continuous interesting challenges. Each player is likely to have very different ideas about which actions are in his own best interest. The fewer the players, the more sedate the game. With only four players, each player has much more control over his own fate than in a five-player game. A six-player game is particularly tricky in that each has so little money and control, yet is immediately faced with difficult decisions. Games with fewer players are recommended for introducing novices to this classic railroad game.

As to the finer points of play, I have some specific suggestions in the following areas: the private companies, the special characteristics of each corporation, general strategies for running corporations, understanding some of the critical limits built into the game, and various thoughts on schemes, swindles and scams. With this as an introduction, even the novice player can become a "rail baron" after a few games. And enjoy himself immensely in the process.

The Private Companies

In general, the private companies are good investments; but they must be unloaded before they lose their worth or become liabilities because of certificate-holding limits. The face value of these companies are approximately correct in games with four or fewer players, but in five- or six-player games there are other factors to consider. Simply stated, purchasers of the three most expensive private companies are more at the mercy of other players with excess cash (due to their *not* buying these expensive items). A player buying the Camden & Amboy for, say, \$200 has only \$200 left to buy

shares in the first round, and some other player is likely to gain the presidency of the *Pennsylvania*. Setting a par value of \$67 per share is obviously going to hurt the C&A holder as compared to setting par at \$90. Similarly, while a high par value of the *Baltimore & Ohio* shares will protect one's initial investment, other players can turn to cheaper stocks leaving the B&O president with just a private company.

Looking at each private company, we'll start with the Schuylkill Valley (SVRR). Buy at \$25 or less, particularly if the purchase results in an opportunity to get another private company you want immediately and at a relatively low price. The revenue for the SVR isn't bad, but better companies are available via the bid system. The other inexpensive private railroad, the Champlain & St. Lawrence (C&St.L) has adequate revenue also, but there are better investments unless you want to control the *Canadian Pacific*.

The Delaware & Hudson (D&H) can be critical because of its control of the station marker in the D&H hex. The *Chesapeake & Ohio* needs this station to get into New York City early in the game and the *New York, New Haven & Hartford* (NYNH&H) needs this station to head west. The *Pennsylvania*, *Canadian Pacific* or B&O could also make use of this hex to place a station marker; corporations with the most station markers have the most to gain by placing a \$100 station in such a good location for only the price of the D&H and the \$120 for placing a tile in the mountains. This is definitely a fun company to have, and its worth is more than its face value.

The Mohawk & Hudson is a good investment at face value, but the hex it commands isn't very valuable to any corporation except the *New York Central*. Since it has to be exchanged for the NYC share rather than sold to a corporation, its resale is limited to individual players. I don't think it is worth a premium price.

The Camden & Amboy (C&A) is a great investment at face value since even a par value of \$67 for the *Pennsylvania* results in \$25 a turn on a \$93 investment. As a result, the C&A is often sold for a premium in a bidding war. However, as I have noted, a high purchase price for the C&A can result in embarrassment for the C&A owner. The resale value for the C&A is generally quite good and the corporation that gains control of the C&A—usually the PA or the B&O—can place the tile to its advantage in reaching New York City. Like the D&H, the C&A gives its owner some valuable options.

As a private company, I think the Baltimore & Ohio (B&O) has relatively little to recommend it. The \$30 it earns each turn won't make up for the retardation of early growth and the possibility that the *Pennsylvania* will make the corporate life of the B&O cramped. Eventually, other players will make the B&O float as a corporation and the private company will end. Of course, buying the B&O private company is the only way to get the president's certificate, but the par has to be high enough to protect one's initial investment. A player has to want the B&O corporation to buy this company, but I don't think a good player should pay much over face value for the company.

The private companies usually get distributed evenly among the players, but it is possible for a player to either be heavily invested in private companies or to be cut out completely. Heavy investment in private companies usually gives control of

the early starting corporation railroads to others. Good cash flow leads to some fine chances to start a corporation in Turns 4 or 5 because one is likely to have more ready cash than the other players, but liquidation of the few corporate shares one has will probably be necessary to make any big move. Unloading the C&A at this time to a corporation is also a great way to get cash.

In contrast, players buying no private corporations have the best chance to control the corporation of their choice. Since cash flow will generally be low at first, these players will have to either sit tight on long term investments or plan massive share liquidations to raise cash for further major moves. Since such major moves should only be made if the first corporation is in horrible financial trouble, timing must be perfect for such a move to succeed. Let's look at the corporations now for a better understanding of what can go wrong.

The Corporations

The *Pennsylvania* (PA) is disadvantaged by low revenues in the early stages of the game, but it typically is the dominant railroad in the game. It almost always gets started in the first turn. The PA has sufficient station markers, and two of them should be played in Pittsburgh and Philadelphia quickly. The PA should get into New York City and Chicago, and it should be able to use big engine power at the end of the game. Both a "5" and a "6" are ideal, but a diesel usually can be profitable. The PA can usually make an "alliance" with either the C&O or the B&O for purposes of route enhancement. Its own interests should be carefully protected by its president, however.

The *New York Central* (NYC) is very disadvantaged at the beginning of the game. It has the worst available routes on the board until the "3" engines are in play, and thus it is poor choice for a first railroad. This corporation has to make its way into territories of other railroads to do well. The best possibilities are around Buffalo and Toronto or Chicago since simple blocks will keep the NYC out of Philadelphia and its environs. Local cooperation is usually necessary to exploit any area of the board. There are possibilities, but this railroad is difficult to play well.

The *Canadian Pacific* (CP) is a nice little isolated railroad—deadly dull to own and run. It is well suited for the lean-engined, steady-dividend, high-stock-value strategy to be discussed later. The corporation can also be run in the manner of an expansion-minded NYC, particularly if it buys the D&H. This play fills the New York area with hostile railroads and makes life difficult for all.

The *Baltimore & Ohio* (B&O) can have a very cramped game unless it breaks into the PA territory early. An early grab of Philadelphia is a joy and should be attempted if the B&O has a chance. The B&O has to defend itself against a PA-C&O alliance by getting a station marker on the "H" tier or above. Shares are usually good investments if the corporation is going to be started immediately, but I find the price for becoming president a bit steep.

The *Chesapeake & Ohio* (C&O) is the great track-laying railroad. It has good revenues early in the game, but like the PA, it always seems to need more engines, more money, or both. Running the C&O is a roller coaster ride. Investors will typically dump the stock after five or six turns to buy other stocks in anticipation of the C&O stock value decline due

to frequent withholding of dividends in Turns 6 through 11. Of course, this corporation can be run leanly, but the *C&O* is a diesel-type of railroad and, as a result, timing of the purchase of new equipment is very critical. The best time to save is when revenues are high.

The *Erie*: does your spine tingle when you hear the word? It should—beware the *Erie*. It's a lot safer to be president of the *Erie* than to invest in it, particularly if the president of it also controls another company. If the *Erie* starts late in the game with a par of \$100, you can be sure that a diesel is going to be bought and that diesel will be sold to another company with smarter investors. The *Erie* is a nice second or third railroad to control; its success depends on the friendly assistance of other corporations.

The *New York, New Haven & Hartford* (*NYNH&H*) is another nice local railroad. With a little luck it can place its station marker in a nearby spot like the *D&H* or the *NYC* hex and set up a tidy "5" engine run into New York City (south) or Boston. There are even good breakout possibilities to the west, but saving for a diesel with this railroad doesn't usually make much sense. The tile placements to the northeast and west of New York City are critical for the future of this railroad. Try to keep the *NYC* president from making trouble, and you'll likely do well enough with it.

The *Boston & Maine* (*B&M*) is another nice railroad, but its breakout potential is even less than that of the *NYNH&H*. In addition, mountain crossings are usually necessary. It is a fine second railroad to run, particularly when the *NYC* or *NYNH&H* is the other corporation controlled.

If I can't get my favorites, I'll take the best of what is left available; being president of several railroads is what the game is about. At the beginning of the game there is usually only enough capital to start three or four railroads. If the president's share in one of the more lucrative corporations isn't available, it makes sense to buy single shares rather than buy the president's share of another corporation if there isn't enough capital to get yours started anyway. Investor confidence is an important element in 1830, as the experienced players are likely to get better financial backing.

Corporate Strategy

The design of 1830 is such that carefully and competitively run corporations have the highest stock values at the end of the game. For such corporations, dividends might be lower on a particular turn than far more grandiose corporations, but the dividends are steadier than those for corporations that save to invest in big engines and long lines. Let's look at the economies.

Suppose corporations "A", "B" and "C" have identical stock value of \$126 on the highest row of the Stock Market Chart. Each has enough money to buy a "5" train. Corporation A buys the "5" and operates it for dividend distribution of \$25 per share until the end of the game in, say, ten turns. Each share would then be worth \$350, plus the \$250 per share paid out for dividends. Corporation B saves two turns and, by then (as if by magic), a diesel is available and he has a "4" train to trade; he buys the first diesel. His revenue is, say, \$50 a turn for eight turns, but his shares are worth only \$250 each on the market. There are some important "ifs" in this calculation, but the return per share in this scheme is \$650—a small gain over Corporation A (which had \$600 per share value at the end). Corporation C meanwhile buys a "5" engine, and saves for four turns to buy a diesel as well. Once the "5" and the diesel are at work, the dividends are \$75 per share, but only for six turns. The total dividends are \$450; including the share value of \$180 makes for a total per share return of \$630. If the game goes on longer than ten turns from the

hypothetical point suggested, the corporations equipped with diesels are favored, but a shorter game tends to favor the conservative corporation (A). 1830 is so finely tuned as to make the decision of whether to save for diesels a very important one. Factors in this decision are whether the game will last long enough to make the diesel worthwhile, and whether the high revenue routes will still be available for it. The revenue estimates in the above calculations are by no means certain, and poor timing of saving and of purchasing new engines can lead to great disaster. Railroads that often can use a diesel profitably are the *NYC*, *C&O*, *PA* and *B&O*. The others are usually limited by territory, track or station markers.

No one strategy is perfect, but the conservative approach has a good chance to win if the quality of the player's stock portfolio is high. On the other hand, a more opportunistic player who gains control of two or three corporations (possibly even a corporation with very low share values so he can exceed the certificate limits) often can win with proper management of his trains and lines.

One of the most difficult aspects of the game for novices lies in anticipating the changing conditions of the game. These changes simulate gradual modernization and increased complexity. The game is divided into phases in accord with the complexity of the tiles and the quality of the engines for sale. For me, there are three distinct stages of the game, which I'll refer to simply as the opening, the middle and the finishing stages.

The opening stage includes the initial stock purchasing and initial tile laying operations of the game. Engines are plentiful and cheap (the "2", "3" and "4" types); dividends are small but regular; and private capital is reinvested to buy more stock. The game looks simple at this point and of rather low complexity. Heavy investment in trains usually results in higher dividends, but a railroad often becomes cash poor if this is done.

The real challenge of 1830 lies in the middle stage of the game. It is marked by increasing scarcity of engines and high prices for the "5" and "6" trains now available. Often there is much action in the stock market as players jockey to improve their overall positions. Players often will sell shares of stock of corporations with high value and relatively little cash return in order to start new corporations, while holding on to corporations with good runs. The number of turns a corporation must save in order to purchase a new engine is critical for its eventual value, and presidents who start to accumulate too late sometimes have to dip into their own private capital. Games are won or lost at this stage; the absence of an engine almost always spells disaster for a corporation and the player who controls it. The purchase of the two "6" trains and the first diesel are likely to be made by the corporations run by players with a little good luck (sequence of turns is important) and a lot of accurate planning. These purchases inevitably squeeze all the remaining corporations.

The finishing stage of the game begins after the first diesel is sold. Successful companies are now fully equipped and merely laying a few more tiles, while the "also-rans" are still scurrying to amass capital to buy diesels. Since there are only three "5" trains and two "6" trains, the purchase of a diesel or two is inevitable, and only the first player to do so will get a cheap one. Seldom do diesel purchases made after the first turn in which they become available pay off, but players often have no other choice.

Another critical area, although less serious than that of engine purchase, is that of tile placement. Some blocking maneuvers with the non-station green and brown tiles are available to clever players who want to limit access to particular areas. Close study of the tiles available before it is the corporation's turn to move is sometimes warranted. More obvious is the proper play of station tiles. Promoting tiles

in the 57 to 14, or the 15 to 63, sequence in ones' own routes results in a small but important edge in revenues and access. Placing the right tile of the 64 to 68 set on the Camden hex can be very significant for the *PA* and *B&O*, for example. The *Erie* and *Toronto* hexes can be exploited well or poorly (tile 67 is particularly appropriate for *Toronto*). Last but not least, the 1, 2, 55, 56 and 59 tiles are of tremendous importance in the development of the New York City area. A thoughtful player will spend some time analyzing the possible placements with an eye toward eventual route building.

Another critical area of play is that of station marker placement. Most corporations have enough markers (with the exception of the *B&M* and the *NYNH&H*). I have seldom seen the *PA*, *NYC*, *CP* or *Erie* use all their station markers, while the *B&O* and *C&O* often need all of theirs. I must admit I prefer "open" games with restrained usage of station markers; this leads to big, productive diesel runs for my trains. But some games will inevitably see "station wars" commence as players place stations to block the access of other corporations to their lines.

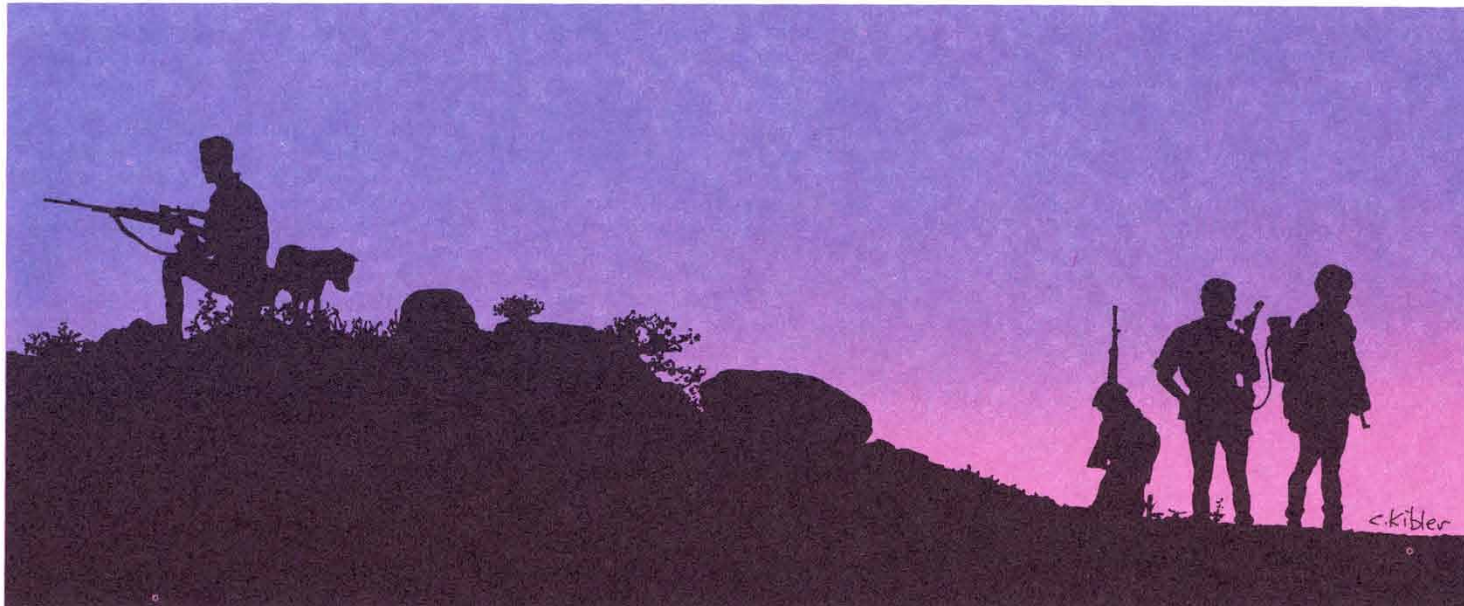
A final critical topic is that of certificate limits. The certificate limits are, of course, lower as the number of players increases towards the maximum. A six-player game is usually very challenging as one must work with fewer resources. One "legal" (i.e., not breaking the game rules) way to gain an advantage is to hold as many president's certificates as possible, thereby increasing the actual number of shares held. A person with two or three president's certificates becomes a favorite to win on shares alone, so other players must strive to prevent any player from running three railroads simultaneously. The other "legal" way to increase the number of shares held is to buy shares currently in the yellow and brown areas of the Stock Market Chart. How to succeed at this brings us to our next topic.

The Schemes, Scams and Swindles of Scoundrels

(This information is intended for honest players who need to know how to protect themselves from those who shouldn't be allowed to play with gentlemen and ladies. Honest.)

Players running only a single railroad can usually be trusted not to ruin their own chances by mismanaging operations on purpose (although sometimes a little advice is necessary to prevent shooting off toes; that's the role of other interested stockholders in a corporation). But players running two or more corporations can never be trusted. The most obvious ploy is to run one railroad to help another at its own expense. Sometimes irate minority shareholders can do something about it. However, the more subtle operator may need to be turned out also. If a player holds six shares in one corporation and three in another, watch for signs that the second corporation is withholding dividends to buy an engine while the first always pays dividends. A switch is in the offing. The second corporation will buy a new engine, but it will be quickly bought by the first corporation at a reduced price. The second will then simply keep on saving or will be dumped onto the market. The best defense against this is to wrest control of the second corporation away from its evil president before the switch is made. This usually requires the good guys to hatch a takeover bid; convince the other shareholders that you are indeed the deserving new president.

A second version of this scam is to gain control of one company deep into the brown or yellow areas of the Stock Market Chart. These stock shares aren't worth much, but often there are possibilities for these low valued corporations in buying engines for rich sisters or themselves. Values are kept low so



REVOLUTION AGAINST THE REVOLUTION

The Nicaraguan Contra War and FIREPOWER

By James P. Werbanth

On 17 July 1979, Anastasio Somoza Debayle resigned the presidency of Nicaragua, then flew to temporary asylum in Florida. The dynasty that had ruled Nicaragua since June 1936 came crashing down under economic and political pressure from the *Broad Opposition Front* (FAO) and a short, sharp insurgency waged by the *Sandinista National Liberation Front* (FSLN).

At the time, it appeared that Nicaragua had reached the end of a long nightmare. By the standards of Latin American authoritarianism, the new regime established by Anastasio Somoza Garcia in the 30's was not overly brutal; but a dictatorship it was nonetheless, and a most corrupt one at that. The central districts of Managua were virtually leveled by a series of earthquakes in 1972, and the second Anastasio Somoza's cronies availed themselves liberally of the relief funds that should have gone to rebuilding and revitalizing the city. Their theft was so pervasive that to this day it is a wasteland of vacant lots punctuated by a few broken buildings.

But "Tacho's" flight marked the beginning of a new and worse nightmare. The FAO was a coalition of predominately middle class elements dedicated to overthrowing the Somoza dynasty. They were all unused to the practice of revolution instead of nonviolent opposition, and until a few months before would have found the idea of administering a revolutionary regime unthinkable. Due to the complete domination of Nicaraguan government by the Somozas and company, none in the FAO had experience in any other type of government. Highly experienced in opposition politics, they were relative greenhorns in using power.

Furthermore, in July 1979, few in the FAO had a firm idea of how post-somocista Nicaragua was to be run. With Somoza himself in luxurious exile, the pertinent question was, "Now what?"

The FSLN had no such problems. It was founded as a Marxist-Leninist "vanguard" organization in 1961 by Carlos Fonseca Amador, Silvio Mayorga, and Tomas Borge. All three founders, and those who

joined them, wanted to stage a Cuban-style rural insurgency to seize power, after which they would establish a Marxist-Leninist state. From the beginning, Karl Marx, V.I. Lenin, Fidel Castro and Ernesto "Che" Guevara were the ideological idols of the Sandinistas and were to remain so over two decades later.

Unlike its eventual tactical allies in the FAO, the FSLN had a great deal of experience in revolutionary practice. Unfortunately for the Sandinistas, most of their experience in a series of rural insurgencies was unpleasant, resulting in the deaths of Fonseca and Mayorga and in the imprisonment of most other important leaders, including Borge and Daniel Ortega Saavedra.

Sandinista fortunes took a turn for the better in December 1974, following a string of military and political defeats by Somoza and his National Guard. FSLN terrorists raided a Christmas party attended by some of Somoza's closest associates, including his brother-in-law. Two and a half days of negotiations under mediation of Archbishop Miguel Obando y Brava brought the release of fourteen Sandinistas, one million dollars in cash, and the publication of a long anti-Somoza communique. The raiders flew off to training camps in Cuba. The FSLN had gotten attention.

The FSLN's situation improved even more dramatically in 1978. On 22 April, a column of National Guardsmen entered the National Palace in Managua while the Chamber of Deputies was in session. Once inside the building, their commander identified his group as the "Army of the People, the Sandinista National Liberation Front" and seized the Palace and all those inside it.

Led by Eden Pastora Gomez, the Sandinistas had over fifteen hundred hostages, including the entire Chamber of Deputies. A force of National Guard commandos under the command of Michael Echanis, a United States veteran of the Vietnam War and mercenary soldier, stood ready to storm the Palace. Schanis and General Jose Ivan Alegré urged Somoza to allow an attack by a dozen or so

elite National Guardsmen. But Somoza refused to give them permission. The Sandinistas held Luis Pallais Debayle, acting president of the Chamber of Deputies and Tacho's cousin, and Jose Somoza Abrego, President Somoza's nephew by way of an illegitimate brother. Anastasio Somoza opted for negotiations.

The crisis ended after almost two days. Somoza released about fifty prisoners (including Tomas Borge) and paid a half million dollars in ransom. To humiliate Somoza even further, he had to allow the publication of a six-page message in the Somozas' own newspaper *Novedades*. Pastora led his force of terrorists and the freed Sandinistas to the Managua airport. Along the way, their buses were greeted by cheering throngs who shouted "Down with Somoza!" and "Somoza to the gallows!" Now the FSLN had not only the public's recognition, but their imagination.

The Somoza regime had been weakened by the two Sandinista terrorists actions, the 1972 earthquakes, and Somoza's own heart attack in May 1977. The Sandinistas enjoyed a great deal of support not only among Nicaraguans, but also from the governments of Cuba, Honduras, Costa Rica, Panama and Venezuela. In 1978 and 1979, it was around the Marxist-Leninist FSLN that the moderate, bourgeois FAO coalesced.

In the wake of Somoza's downfall, the FSLN experienced none of the confusion and indecision that afflicted the members of the FAO. The Sandinistas were Marxists, and thus had a coherent and consistent vision of Nicaraguan and world history from the distant past to the literal end of history. As Leninists, they had a cohesive pyramidal organization of disciplined professional revolutionaries who, though they might make tactical alliances with others, strove inexorably toward the acquisition of unquestionable power in Nicaragua.

Leninist parties frequently suffer from stagnation after holding power for decades. This is due to their rigid organization and strong (often stifling) internal discipline. But for a Leninist party operating in the

context of a power vacuum and opposed by a hodgepodge of less disciplined rivals, these attributes are a veritable boon. Leninists never lose sight of their ultimate goal and have the cohesiveness to overcome obstacles that would destroy other organizations.

The FSLN began to press its erstwhile allies by monopolizing the formation of the new military and security organs and the mass organizations. In the chaos of the immediate post-Tacho era, no objections were raised. Then the FSLN commenced diverting government money and facilities to itself. A few voices were raised in dissent, but as then-member of the Junta of National Reconstruction Alfonso Robelo remembered later, such matters "were never discussed. They just happened."

At the center of the Sandinistas strategy was the propagation of the myth that only the FSLN was responsible for unseating the last of the Somozas. Unlike most myths, this one had no basis in fact. The contributions of all others not affiliated with the FSLN were ignored or ridiculed.

The FSLN also deliberately confused its identity with that of the government, then administered by a FSLN-dominated Junta of National Reconstruction. The FSLN's National Directorate assumed semi-government trappings and when it contradicted the junta, it was the will of the National Directorate that prevailed. This too was answered with little, if any, opposition.

The fiction of a FSLN-middle class coalition was eventually dropped, and FAO members dropped out of the junta. Robelo was one of the first to go. Also leaving at about the same time was Violeta Barrios de Chamorro. She was (and remains) the publisher of *La Prensa*, a newspaper that has caused both the Somozas and the Sandinistas grief as a center of vocal opposition.

Within a year, the nature of the new Nicaragua was clear. Though initially pledging to institute a mixed capitalist-socialist economy, the FSLN government was committed to state socialism of industry and a transition of collective and state farms in agriculture. The social system was to be one of FSLN-sponsored association in official trade unions, professional organizations, even the so-called "Popular Church". In politics, the FSLN held all meaningful power and was willing to build a massive police apparatus to protect it.

The new order was readily and energetically enforced. Under Tomas Borge and a large number of Cuban and Soviet advisors, the Interior Ministry was an increasingly large and efficient machine of coercion. Its branches, particularly the *General Directorate of State Security* (DGSE) under the aptly named Lenin Cerna, took part not only in the customary legal and extralegal methods of repression, but summarily executed prisoners as early as October 1979. Among the favorite targets of execution in a country without legal capital punishment were former soldiers of the old National Guard.

A second vehicle for enforcement is the *Sandinista Defense Committees* (CDSs), Modelled after the "Committees for the Defense of the Revolution" in Cuba, these are intended to be the eyes and ears of the Sandinistas among the general population. In addition to operating as an intelligence-gathering apparatus, the CDSs fulfill a role in the dissemination of FSLN propaganda. Furthermore, they have assumed control over such matters as the acquisition of motor vehicle licenses and permission to travel abroad.

Less formal but still to be reckoned with are the *turbas divinas* ("divine mobs"). These are raised by branches of the Interior Ministry to intimidate opponents, potential opponents, unapproved organizations, nonradical religious people, or anyone else the Interior Ministry feels may pose a problem in the future. Their activities range from the disruption of meetings to the beating and public humiliation of individual opponents. *Turbas* have also been

used to shut down religious institutions viewed as insufficiently committed to the cause. As but one example, they defaced the house of Violeta Chamorro with graffiti of the most vicious variety, which she stubbornly refuses to remove to this day.

The Sandinistas have proved more than willing to turn the entire machine of coercion upon anybody who dares challenge specifics of the FSLN program or who refuses to think as ordered. An authoritarian regime is one that tries to control the most important actions of the individual, especially those actions connected to politics. A totalitarian regime is one that tries to control all aspects of behavior, and attempts to legislate thought as well. As the Sandinista government couples the active use of its security organs with massive efforts at propaganda and "political education", one must conclude that Sandinista Nicaragua is a totalitarian Nicaragua.

Both authoritarian and totalitarian regimes offend the sensibilities of those who are fundamentally committed to what they see as a better way. The repression and kleptocracy of the Somozas and company alienated the business elements that founded the FAO. *Somocismo* also alienated the radical students and intellectuals who founded the FSLN with a profoundly different idea in mind. Now the Sandinista regime alienates those who find totalitarianism abhorrent.

Though no scion of the Somozas could ever be accused of anything close to humility, the FSLN possesses an arrogance shared by no other authoritarian regime in the world. Marx has told them that man can, and eventually will, find his salvation on this earth. Unlike other utopian philosophers, Marx did not say that his utopia was only possible, but was virtually inevitable.

From Lenin the Sandinistas take the notion that Marx's "wonderful" end of history can be hastened. Lenin also gives them modes of organization and political strategies all the more attractive for their ruthless effectiveness. Lenin's writings stress the need for utter ruthlessness in the interest of the cause and the ability to make tactical alliances when necessary with competitors, who will eventually be betrayed and eliminated. For a party striving for or consolidating its hold on power, Leninism is Machiavellian to an extreme.

Marx gives the FSLN an end, and Lenin gives it means and motivation for action. This combination produces in any true Marxist-Leninist party a supreme quasi-religious arrogance. The Marxist-Leninist is a messiah for whom every political act, no matter how duplicitous or brutal, is justified. The FSLN may wrap itself in the myth of Augusto Cesar Sandino, the nationalistic Liberal party guerrilla who fought the National Guard and US Marines from 1927 to 1933, but the Sandinistas are the heirs of Marx and Lenin, not Sandino.

Due to its exclusivist messianic complex, Marxism-Leninism rejects the concept of a loyal opposition so crucial to representative democracy. Those who oppose Marxism-Leninism are perceived as traitors to their country and, indeed, the entire human race. Those who question the policies of Marxist-Leninists are at best benighted, and at most malicious, enemies of progress. Those Marxists who recognize the concept of the loyal opposition do so only by fatally compromising Leninism.

The FSLN is just such a party. Its members truly believe that they are the saviors of Nicaragua and the vanguard of progress. Those who disagree with either the generalities or specifics of *sandinismo* are to be dealt with in a ruthless, Leninist fashion. For this the FSLN reserves for its exclusive use an arsenal of repression ranging from the *turbas* to the sinister DGSE.

The FSLN in its arrogance closes off all peaceful routes of opposition or even officially unapproved expression. Yet there are those Nicaraguans whose consciences and sensibilities

make them abhor the regime. They find opposition to the FSLN ethically mandatory, but are precluded from nonviolent opposition by the Sandinistas, who in their own minds can do no wrong, but are not about to yield. Thus an irreversible force (opposition) meets an immovable object (the FSLN).

The *contrarevolucionario* (Contras) movement has been created by this conflict. The contra wishes to fight what he sees as evil in his own country and, rejecting the efficacy of peaceful opposition, makes the momentous decision to resort to force of arms. He does not fight because he wants to, but because he feels compelled to take part in the only form of opposition allowed him by the FSLN and its police. If the FSLN were to let the contra believe that nonviolent political activity could change the face of Nicaragua and that his past actions would not result in reprisals, he would, in most cases, put down his gun and stop killing his countrymen. It is certain that had Sandinista arrogance permitted the tolerance of a unmolested loyal opposition, there would have been no contras.

But that is not the case. The FSLN will not put up with pluralism of any sort. So now Nicaragua's civil war is the largest in Central American history. Nicaragua's tragedy is that this appalling war ought not to have occurred at all.

NICARAGUAN DEMOCRATIC FORCE

The *Nicaraguan Democratic Force* (FDN) was the first of the contra organizations, and is now the dominant force in the movement. Too, more than any other contra group, the FDN owes its existence to an alliance of former National Guardsmen and foreign governments.

The Broad Opposition Front may have suffered confusion in the summer of 1979, but it was the confusion of victory. The situation in the national Guard was far worse and much more uncertain. It was the confusion of absolute defeat and abandonment.

To a great degree, the 10000-man National Guard was a dynastic army, not a national one—defending the Somoza order first and Nicaragua second. This is hardly surprising, considering that in the few instances that Nicaragua was faced with war against an external foe, Nicaragua was the aggressor and the potential enemy was unarmed Costa Rica. Furthermore, although the National Guard was founded by the US Marines during the war against Sandino as an apolitical force, it was quickly taken over as almost a private army by Anastasio Somoza Garcia, the founder of the dynasty.

One of the goals of the United States' Nicaraguan policy in 1978 and 1979 was the preservation of at least a rump of the National Guard to protect against totalitarianism in post-Somoza Nicaragua. Initial agreements between the Junta of National Reconstruction and the Carter administration provided for the integration of National Guardsmen with Sandinistas into a new Nicaraguan army. But the National Guard lost its reason to exist when Somoza fled to Florida, and there were no coherent National Guard units to integrate with anything. Furthermore, the prospect of such mortal enemies as Guardsmen and Sandinistas serving amicably in the same force was possible only in the minds of the uninformed or unrealistic, and the FSLN was neither.

Despite the total collapse of their economic, social and political order, some exiled National Guard veterans refused to believe that Nicaragua would necessarily remain Sandinista for eternity. About 300 Guardsmen in Honduras formed the *Fifteenth of September Legion*, which commenced raiding operations across the border into Nicaragua. According to some observers, the Legion fired the first shots in the struggle to rid Nicaragua of totalitarian repression. Others, such as the liberal historian Richard Alan White, believe that its members "distinguished themselves by robbery, murder, and indolence."

Some foreign governments grew wary of the Sandinistas at this same time. Predictably, the new government established very close relations very early with the USSR, Cuba and Bulgaria (which sent economists to help plan and run the Nicaraguan economy). Close ties were also forged between Nicaragua and Grenada (then under Maurice Bishop and another Leninist party, the "New Jewel Movement"), Libya, and the Palestine Liberation Organization. Other terrorist and guerrilla movements were welcome in Nicaragua. The *Farabundo Martí Liberation Front* (FLMN) fighting in El Salvador established its headquarters in Managua (see Vol. 22, No. 6 for more on the FLMN). The Basque ETA terrorist organization had a presence in Nicaragua; and Mario Firmenich, the leader of the Argentine group called the *Montoneros*, arrived in Managua to study the strategy that brought the FSLN to power.

The presence of these radical leftist groups, especially Montoneros, deeply alarmed the military government of Argentina. Enrique Bermudez, a National Guard colonel and former military attaché in Washington, and between 70 and 80 other former National Guardsmen flew to Argentina in late 1980 for training, advice, and \$300,000 in cash to carry on the fight against the Sandinistas. Thus, the same concern for internal subversion and terrorism that led the Argentine government to launch the disgraceful and paranoid "dirty war" at home also induced it to become involved in the emerging Nicaraguan resistance.

The Argentines also helped a non-National Guard armed opposition group become established. The *Nicaraguan Democratic Union* (UDN) was formed in Miami in October 1980 by Jose Francisco Cardenal and other predominately middle-class opponents of Somoza. Reflecting the UDN's motto, "*Sin comunismo, sin somocismo*", its chief of staff was not a National Guardsman but Orlando Bolanos, a Nicaraguan whose military experience was in the United States Air Force.

The first support for the UDN came from Nicaraguan exiles, who funded the purchase of two hundred hunting rifles, shotguns, sub-machineguns and civilian models of the M16 from Miami gun shops. By prior arrangement with friendly Honduran officers, the weapons were shipped from Miami to Honduras in the name of the Honduran armed forces. The UDN believes that an anti-Sandinista uprising is inevitable. Its objective was to hasten the insurrection and be in place when it happened to take power from the collapsing FSLN. With this goal in mind, the UDN coordinated guerrilla bands in the mountains of the department of Jinotega on Nicaragua's northern border.

But the organization suffered from shortages, especially of food. Founding member Edmundo Chamorro led a UDN delegation to Argentina in May 1981. The Argentines gave them a plastic bag containing \$50,000 in hundred-dollar bills, which the organization used to purchase food in Honduras and more guns in Miami. The Argentine military sent messages to Chamorro, Bermudez and other important exile leaders that they would send more aid and advisors to Honduras, where the Argentines would train the resistance fighters. This was contingent on the unification of the various exile groups into one large front, however.

At about the same time as Argentina, the United States entered the picture. The new Reagan administration was concerned that massive US aid to Nicaragua, always downplayed and treated as a birthright by the Sandinistas, was going to the construction of a Yankeeophobic state founded on Marxist-Leninist principles. Disturbing the United States government most was Nicaragua's support of the Salvadoran FMLN. The Sandinistas gave the Salvadoran guerrillas a haven in Nicaragua and sent weapons to the FMLN, as well as facilitating the transfer of arms from Cuba to them.

On 11 August 1981, Asst. Secretary of State Thomas O. Enders presented the United States' demands in Managua. These demands were that the Sandinistas cease sending arms or otherwise aiding the FMLN, slow or stop their own prodigious military buildup, loosen their ties with the Soviets and Cubans, and permit some measure of economic and political pluralism. As dedicated Marxist-Leninists pledged to "revolutionary internationalism", they refused to accede to Washington's wishes under any conditions.

On the same day, the FDN was born in Guatemala. In that city, Orlando Bolanos, Enrique Bermudez, and others in exile met with a group of Argentine army officers. This meeting produced a unity pact providing the exile organizations with Argentine assistance. In return, the Nicaraguan organizations united to form the *FDN*. In a move to balance former Guardsmen and civilians in leadership positions, Bolanos was named overall military leader and Bermudez his second-in-command. Edmund Chamorro, however, could not abide taking orders from any national Guardsman and remained outside the FDN, keeping the name of the UDN alive.

Cardenal did not attend the Guatemala summit. But he did meet a few days later with an Argentine colonel, Julio Villagas, at the Miami airport. Villagas told Cardenal that a tripartite agreement had been concluded between Argentina, the United States, and Honduras whereby aid was provided for the FDN. Villagas led the Nicaraguan to believe that money would come from the United States and that Argentine officers would go to Honduras to provide training and political leadership. Villagas was to handle military direction, and Colonel Oswaldo Ribeiro would take charge of the FDN's political strategy.

Argentina played a decisive role in the amalgamation of the disparate Nicaraguan exile groups into the FDN. Argentine advice and support continued, interrupted only by the Falklands War of 1982, until the ascension of the civilian Raul Alfonsín to the Argentine presidency in 1983. Though American support for the contras has dwarfed that of Argentina, the latter was much more active and important as a catalyst towards the unifications of the various contra groups.

Despite Villagas' version of the division of labor among the FDN's foreign sponsors, the United States provided more than funds and the Hondurans more than sanctuary. In the early 1980s, the United States was the source of almost all of the FDN's arms and equipment. Following the joint American-Honduran military maneuvers of August 1982, US Air Force transports delivered panelloads of material to the contras. Furthermore, instead of taking all their equipment home after the exercises, the United States forces left much of it behind in Honduras for distribution to the FDN. The Honduran military also "just opened the doors" of its warehouses to the contras and was resupplied in turn by the United States.

The United States and Honduras also shared much of the FDN's leadership responsibilities with the Argentines and the Nicaraguans themselves. According to FDN sources, at the summit of their command structure was John Negroponte, the United States ambassador to Honduras. Negroponte collaborated with United States military and Central Intelligence Agency experts in the formulation of FDN strategy. Negroponte's general instructions were sent to a group consisting of Colonel Bermudez (who took over from Bolanos), the Argentine military representative, the CIA station chief in Tegucigalpa, and the high command of the Honduran armed forces. This group passed more specific orders to the third tier, which consisted of the FDN officers who actually led contra operations.

But harmony among the contras and their foreign supporters was sometimes elusive in the early 1980s.

The FDN's objective was fundamentally political in the Clausewitzian sense: the replacement of the Sandinista government with one not committed to Marxism-Leninism and less willing to insist that every aspect of Nicaraguan economic, social and political life be within its purview. The Argentines were not quite so picky about the future of post-Sandinista Nicaragua as were the contras. They wanted to overthrow the FSLN, but were quite apathetic regarding the government to succeed it—just so long as the new regime did not support foreign leftists with such alarming fervor. The Nicaraguans were understandably very deeply concerned about the fate of their country, whereas the Argentine colonels could simply go home after the war and let someone else clean up the mess.

United States goals in Nicaragua have been, and remain, the most unformed when taken at face value. The United States began its aid to the FDN ostensibly to interdict arms shipments from Nicaragua to the FMLN. By this same policy, the United States is officially far more interested in a negotiated political settlement with the Sandinistas than in toppling their regime. The purpose of the contras is to allow the United States to negotiate from a position of relative strength and force the FSLN to adjust its behavior more to a North American liking.

This policy ignores the intractability of both sides in the conflict. The Sandinista leaders have risked their lives in war, languished in prison, and seen old friends and comrades die for their Marxist-Leninist ideals. They will not abandon their ideology, which for them has a force commensurate with that of religion, simply to please the USA or anyone else. When the Sandinistas talk of "national liberation", class struggle, and their deep hostility to the United States, they are most sincere. The contras are likewise irrevocably committed to the overthrow of the FSLN. The FDN fights for Nicaragua, not El Salvador or the United States. While the contras might get some pleasure in frustrating FSLN ambitions outside of Nicaragua, the overriding goal remains the destruction of *sandinismo*.

An overly successful FDN could be an embarrassment to the United States. If the contras appeared ready to defeat the Sandinistas in short order, the official policy of building strength for negotiations would be badly undercut. The United States has a strong interest in keeping the FDN functional as an effective force. But until the United States domestic body politics generally accepts that the contras are a worthy recipient of tax money and that the FSLN deserves to lose power, the United States will not have an overriding interest in a contra victory.

Necessary to a contra victory against the Sandinistas is a potent political presence in Nicaragua. Much as Communist cadres worked in China and Vietnam to elicit support for guerrillas there, so FDN operatives have to build contra sympathies among Nicaraguans both inside and outside the FDN's theater of operations. Without significant popular support, the contras will have to rely on imported food and supplies, be tied to Honduran and not Nicaraguan bases, and their penetrations into Nicaraguan territory will be temporary. Probably due to American influence and their own previous lack of schooling in revolutionary theory, the contras have not made an effort in the past to forge this most important of weapons. The FDN has political organs, but they are geared to accommodating civilians in what is essentially a militant movement.

From 1981 through 1983, the military strategy of the FDN appears to have been simply to establish itself as a force in northern Nicaragua. Some observers believed that its objective was the establishment of a "liberated zone" in the northern border departments, from which the contras could reap political benefits inside and outside Nicaragua.

But due to the low capabilities of the contras and the relatively low intensity of their operations, this appears unlikely.

The area of operations chosen by the FDN is highly conducive to anti-Sandinista guerrilla activities. Separated from Honduras along much of the border's length by the Rio Coco, the northern departments are mountainous, heavily forested, and to a large extent wilderness. The population is sparse and the settlements tend to be small and widely separated. The road network is underdeveloped; transportation is often difficult. The population likewise favors the contras. The inhabitants are largely small independent farmers. Many have had their land confiscated by the Sandinistas, who followed their triumph with a frenzy of confiscation against *somocistas*, National Guardsmen and their families, and other "enemies of the people". This has not only created a large group of northerners predisposed to fight the Sandinistas, but has made many others receptive to the contras by instilling the fear that they too will lose all they have worked for.

The people of the north are also more conservative in general than others in Nicaragua. Appeals to class consciousness and Marxist ideology carry far less weight than appeals to religion and political conservatism. An indication of the northern departments' inherent trend is that the region was a fertile recruiting ground for the National Guard right up to its bitter end in 1979. The lifestyles of the northerners is also different for the most part than that of the inhabitants of the more populous Pacific lowlands. They tend to have a pioneer ethos rather than a collectivist spirit. Thus, the northern border region is separated from the rest of Nicaragua by far more than distance and bad roads.

The net result is that the northern departments are favorable to the contras. Furthermore, the FDN's Honduran bases are nearby. On one side of the Coco are the vital training camps and supply bases. On the other side is a source of recruits as fertile and vital to the FDN as it once was to the National Guard.

The FDN suffered a severe setback in early October 1984, when the United States Congress voted to terminate aid to the contras. The Argentines had left the year before, and now the FDN was left with the thin support of only such relatively minor benefactors as Taiwan and Israel. At the time of the aid cut-off, the FDN had about 9000 combatants. Some observers believed that the FDN was totally a creature of the CIA, and that without assistance from North America the organization would fade away. But the FDN not only survived, but doubled the number of guerrillas under its banner to 18000 by the end of 1985. The FDN found a way to survive on private aid from the United States and others.

The organization did have to curtail its tempo of operations for awhile, but did not cease fighting altogether. At the same time, the political leaders of the FDN made a strong effort to secure private aid from abroad. Spearheading this was Adolfo Calero Portocarrero, the former FAO member who became the political chief of the FDN. While Enrique Bermudez attended to matters in Central America, Calero feverishly made the rounds in the United States, soliciting donations from wealthy conservatives. Calero estimated that his organization raised about 15 million dollars in 1984 and 1985. John Singlaub, the former United States Army general who advised the FDN, thought that perhaps as much as 25 million was raised. Both agreed that determining the exact amount of private assistance was difficult because much of it came in the form of goods, not cash.

Advised by Singlaub on the intricacies of an international arms market dominated by Soviet weaponry, Calero and Bermudez purchased new weapons for the FDN. Chief among them were AK47 assault rifles and SA-7 shoulder-fired anti-

aircraft missiles for use against the growing Sandinista helicopter fleet. The weapons of the contras have undergone a distinct revolution since the days of the Fifteenth of September Legion. In the beginning, these groups relied on a most un-uniform variety that included an assortment of sub-machineguns and sporting rifles. Then there was a growing reliance upon assault rifles, principally M-16s and FALs, as the new FDN benefited from Argentine and American assistance. In 1984, the numbers of AK47s used by the FDN markedly increased.

At last, in mid-1985 the United States Congress voted to resume aid to the contras for non-lethal purposes. In late summer 1986, Congress allocated 100 million dollars to assist the contras in their struggle, aid to be spent for both lethal and non-lethal materials.

Half of that money will be spent by the FDN on new weapons and other hardware. While purchasing new arms, the FDN plans to reorganize its forces down to the lowest levels. The basic guerrilla unit, according to Adolfo Calero, is now a twenty-man squad. Calero claims that in the near future this unit will have at least one M60 machinegun, one M79 grenade launcher, one 60mm mortar, and a Soviet-made RPG rocket launcher. The basic assault rifle of this unit appears to be the FAL, a weapon to be purchased in sizable quantities with the new funds. Also high on the shopping list are more shoulder-launched surface-to-air missiles. The FDN currently has roughly a dozen Soviet SA-7s in its arsenal. It plans to supplement these with either more SA-7s or the British "Blowpipe" missile. The FDN apparently would far rather procure the American "Stinger", but will have to settle for the balky and difficult to maintain SA-7 or the Blowpipe (which did not perform well in the Falklands).

Though it is essentially an irregular force, the FDN may purchase 105mm howitzers as well. Not only would guerrilla commanders be able to call down unprecedented amounts of firepower, but with howitzers at their disposal, they could bombard Sandinista targets from the safety of Honduras without risking guerrilla units. The main drawback is that such fire missions will be politically and militarily risky, as they might draw incursions by the Sandinista Army in their haven.

Twenty million dollars of the new aid will go toward improving contra communications, training and logistics. Radios and other communications equipment have long been a major shortcoming of the FDN. Most of what little they have had has been undependable and insecure. The FDN now sees the opportunity to remedy this.

The Nicaraguan Democratic Force officers have much combat experience, the best kind of training possible for an army. The resumption of United States assistance permits the FDN to augment this with better training for raw recruits without combat experience. Assisting the FDN will be Special Forces teams from the United States. As the level of training imparted to the contras in Honduras increases, one can expect a general rise in the cohesion and professionalism of the contra combat units.

A full 30 percent of the most recently allocated assistance is earmarked for so-called "humanitarian" purposes. These include food, clothing and medical supplies for refugees and hospital care for the wounded. Of this money, three million will go toward the establishment of an office to investigate alleged human rights abuses by the contras themselves.

The FDN has relied on a type of supply system seldom seen in any guerrilla war. Most guerrilla groups rely to a great degree on the local population for food, clothing and occasional weapons. In the case of Nicaragua, the FDN has to bring almost all of these across the border from Honduras. Contra combat units in Nicaragua are supplied partially by air. Currently the FDN possesses ten fixed-wing

aircraft and helicopters, and two more airplanes are being refurbished in the United States for use by the contras. The FDN plans to buy more aircraft to strengthen its logistical capability in the near future.

Even more important than the purchase of new aircraft are plans to use some of the United States aid to help build clandestine political cells in Nicaraguan cities. This is the start of the political effort necessary if the FDN is to have any hope of ever overpowering the Sandinistas. To be viable over the long term, a guerrilla movement must attract a sizable following among the national population, and most of Nicaragua's people live in the cities. Establishment of such apolitical apparatus by the FDN may be more important than any hardware.

The size of the FDN will grow dramatically in 1987. As of August 1986, about 10000 new recruits, mainly dissatisfied northern *campesinos*, were joining the FDN per month! With this stream of recruits and the resumption of United States assistance, the FDN may have 30000 men under arms by the end of 1986.

The FDN will benefit from the help of the United States, but as its growth in 1984 and 1985 shows, it is not a simple superpower proxy. It is the primary expression of anti-Sandinista opposition that is forced to violence by totalitarianism and FSLN arrogance.

DEMOCRATIC REVOLUTIONARY ALLIANCE

If not for Eden Pastora Gomez, Nicaragua would not be Sandinista. As the commander of the National Palace raid, he thrust the FSLN into the public limelight and made the Sandinistas the most important anti-Somoza group in the country. As the commander of the FSLN's southern front operating out of Costa Rica, he diverted a great deal of the National Guard's strength and allowed the main Sandinista thrust from Honduras to enter the capital after facing minimized armed opposition. Thus it was hardly surprising that Pastora was an immensely popular Sandinista hero.

But Pastora was far different than his colleagues. Whereas the Marxist-Leninists were motivated by class struggle and secondary issues of nationalism, Pastora's opposition to Somoza was powered by more personal reasons. His father was killed in a land dispute that the younger Pastora blamed on the National Guard, and by association on the Somoza dynasty. As Marxist-Leninists, men such as Borge and the Ortega brothers consider themselves "scientific socialists" and atheists, though they may use the religious beliefs of others to cynically advance the Sandinista cause. But Eden Pastora was a Christian Democrat in politics and remains a practicing Catholic.

Pastora is nothing if not ambitious. When the FSLN took power, he was frustrated to be on the fringes rather than in the center of power. The overriding authority in Nicaragua was (and remains) the National Directorate of the FSLN, which consists of nine members. Pastora was not a member. In essence, he was the tenth man in a country ruled by nine.

The Sandinistas did grant Eden Pastora positions of lesser authority. He was Vice Minister of Interior, a member of the FSLN's Defense and Security Committee, and the founder of the militia. He was, however, still shut out from the real seats of power. The other Sandinistas knew of his ambition and were keenly aware of his politics. Pastora's exclusion from power was no accident, and it had to gall him.

From the start of Sandinista rule, Pastora expressed concern that the revolution would be "betrayed" and representative democracy sacrificed by his more radical colleagues. As time passed he grew dissatisfied with the totalitarian face of the new Nicaragua, and concluded that his early worries

were coming true. Because of his abhorrence of Marxism-Leninism and his lofty ambitions, a break between Pastora and the FSLN was virtually inevitable.

Pastora publicly broke with the Sandinistas at a news conference in San Jose, Costa Rica on 15 April 1982. He read a statement that he had prepared with the cooperation of former FAO and junta member Alfonso Robelo. Pastora praised the revolutionary example of Cuba, then proceeded to condemn nearly everything else connected with FSLN Marxism-Leninism. No longer was Pastora a bourgeois nuisance in the FSLN but an avowed enemy with a vast following.

Pastora and Robelo founded the *Democratic Revolutionary Alliance* (ARDE) as an armed opposition group independent of the FDN. As did his former comrades in the FSLN, Pastora was somewhat hostile toward the United States, and like them he viewed the superpower to the north as imperialistic. But though he repeatedly denied receiving CIA help, Pastora received some aid from the U.S. On the whole, the ARDE fought a war separate from that fought by the FDN on the other side of Nicaragua. The CIA assistance was with the understanding that the two wars would be coordinated. Pastora accepted the aid with the notion that he would coordinate ARDE strategy with that of the FDN, but his hostility toward them was so great that the alliance was largely illusory; and United States assistance to the ARDE was consequently sporadic. Eden Pastora's old grudge against the National Guard remained so strong that he could never really accept the FDN National Guard veterans as worthy allies, and any taint of leadership by National Guardsmen was out of the question.

The ARDE suspended operations in June 1983 after only one month of action. Pastora was disappointed that his popularity had failed to spark a general revolt against the Sandinistas. Furthermore, he was upset that the United States was not sufficiently assisting the ARDE and was trying to subordinate the southern group to the FDN. The first strike failed. The next month, Pastora agreed to cooperate more closely with the FDN. Supplies arrived and in August the ARDE resumed hostilities in conjunction with a FDN offensive. But the ARDE-FDN rivalry was as strong as ever.

Eden Pastora launched the ARDE's most ambitious operation of the war on 18 November 1983. About 1000 ARDE contras attacked across a ninety-mile stretch of the southern border department of Rio San Juan in operation "Blazing Tooth". They attacked, but did not take, about two dozen towns and managed to penetrate approximately forty miles inside Nicaragua.

The ARDE reached its zenith in April 1984, when it became the first contra group to take a Nicaraguan town. It seized San Juan del Norte, an Atlantic seaport near Costa Rica. The Sandinistas quickly retook the town but this did not diminish the political benefits of beating the larger and better-equipped FDR in taking and holding a population center, if only for a short time.

The fortunes of both Pastora and his organization declined precipitously after the battle of San Juan del Norte. On 30 May a bomb exploded at a press conference called by Pastora, who was seriously wounded. Some blamed the blast on Borge; others on the CIA. In any event, the effect was devastating.

With the ARDE's leader out of commission, feuds broke out among the group's other commanders. One of the most important points of disagreement appears to have been the willingness to join forces with the FDN, who were opposed by others who shared Pastora's revulsion towards the senior organization. The situation was exacerbated by Sandinista military successes following the ARDE's San Juan del Norte coup.

Pastora recovered from his injuries, but the

ARDE did not. The dissension among his subordinates increased, and his hostility toward the FDN and grievances toward the United States did not lessen. In 1985, the ARDE and the Indian contra groups accused the FDN of bullying them for the lion's share of foreign aid.

Costa Rica also grew wary of the ARDE's continued presence. Eventually the Costa Ricans became worried that the ARDE's militancy was endangering their precarious neutrality. Lacking a standing army, Costa Rica had no desire to be drawn into Nicaragua's war. By 1986 it was clear that the Costa Rican government wanted no part of Pastora or the ARDE.

The ARDE limped on through 1985 and into 1986. Numerous commanders abandoned it for the greener pastures of the FDN. Eventually even Alfonso Robelo went. The end came on 16 April 1986. Eden Pastora announced that he was leaving the war and seeking asylum in Costa Rica. The ARDE was a dead issue.

Pastora now lives in quiet exile in Costa Rica, which considers Pastora at peace far more tolerable than Pastora at war. The southern front is dead and no longer poses a problem for the FSLN. Perhaps it can be resuscitated, but only by the FDN or a subsidiary organization and only if Costa Rica becomes no longer as afraid of contra threats to its neutrality and security. Neither seems likely in the foreseeable future.

When the ARDE went into action, Pastora expected a short insurgency. According to his plans, Nicaraguans impressed with this celebrity would stage a general insurrection against their betrayers. Desertions from the army would swell the ranks of the ARDE and Pastora would enter Managua borne on the shoulders of his many admirers. It is now obvious that Pastora grossly overestimated his popularity in Nicaragua in 1983. There were no desertions from the army and no cheering throngs of *pastoristas*. What there was was a protracted war, and the ARDE proved inadequate to face it.

INDIANS

Compared to the densely populated Pacific lowlands, the Atlantic Coast of Nicaragua is another country. It was a British protectorate from 1678 to 1894, and was largely divorced from the rest of Central America during the Spanish colonial epoch and the temultuous decades of independence that immediately followed.

Though comprising about half of Nicaragua's national territory, the coastal regions contain no more than 200,000 people. A few thousand are Sumo and Rama Indians; and between 20,000 and 50,000 are English-speaking blacks descended mainly from West Indians who migrated to Nicaragua at the turn of the century—a minority that is primarily Moravian, not Catholic, in religion.

The major ethnic group of the Atlantic Coast is the Miskito Indians, who number from 120,000 to 170,000. The Miskitos came into being when a Portuguese slave ship wrecked off the coast in 1641 and most of the survivors were captured by Indians, with whom they had mixed-race children. In later generations there were further additions to the racial mix—including major infusions of Spanish, German and Chinese. The Miskitos generally speak their own language as their mother tongue, with many also speaking Spanish or English or both. In religion many are Catholic, a religion maintained largely by Capuchin missionaries from the upper Midwest of the United States. Many others belong to the Moravian faith first brought to the area by German missionaries in 1849. In either case, Miskitos generally think of themselves as better Christians than the "Spaniards" from Managua.

Miskito culture embraces the concept of communally owned land, which they are loathe to surrender. They have a long-standing rivalry with

Hispanic Nicaraguans that succeeds their former hatred of Spanish colonists. It was this hostility that made them eager and effective allies of the English, who supported the "Miskito Kingdom" that they carved from Panama to Belize in the eighteenth century. From the years of the Miskito Kingdom and the British protectorate, the Miskitos have a continuing tendency to look as much or more toward the English-speaking peoples than Hispanic America for allies.

The heartland of the Atlantic Coast (also appropriately known as the Miskito Coast) is the vast department of Zelaya. It is an expanse of low, swampy land stretching from the central mountain range to the myriad of coves and inlets that made it once so attractive to buccaneers. Much of the land is covered with pine forests. There are only two towns of any size, Puerto Cabezas in the north and Bluefields in the south. Puerto Cabezas is a predominately Miskito town of 12,000-15,000, and Bluefields has a primarily black population of 22,000-25,000 people.

The Somozas discovered that the best way to govern this enormous, enigmatic, and poverty-stricken land was to largely leave it alone. If the Miskitos and their neighbors were left to their traditional ways of life, they would have little reason to resent the foreigners from Managua. Consequently the Miskito Coast was relatively peaceful during the years of the dynasty. The National Guard had only a small presence because a larger garrison would have been a waste of men and resources. Zelaya was peaceful even in 1979, when the people there adopted a slightly interested neutrality as the Spaniards fought among themselves. After the fall of the Somozas, the immediate concern of many was that the National Guardsmen stationed among them might be mistreated by the victors. When one National Guard garrison commander died under mysterious conditions, the local people were extremely distressed.

Not all Miskitos favored their region's state of stuporous underdevelopment. In 1973, a group of Miskitos led by a Moravian pastor named Wycliffe Diego formed the *Alliance for the Progress of Miskitos and Sumos* (ALPROMISU). This organization was primarily concerned with control over communal lands, especially the pine forests, and the teaching of the Miskito language and culture in the schools.

ALPROMISU was radicalized five years later. A pair of Miskitos who had roomed together as students, Steadman Fagoth Muller and Brooklyn Rivera, converted ALPROMISU to MISURASATA (an acronym for Miskito, Sumo, Rama, and Sandinista). Believing that the FSLN offered an opportunity for greater autonomy and progress for the Atlantic Coast, Fagoth and Rivera allied themselves with the Sandinistas. Though it was founded to articulate Indian interests and bring Sandinista ideology to the Indians, MISURASATA soon fell out with the FSLN. The reasons had to do again with Marxism-Leninism and arrogance.

The FSLN made promises of Atlantic Coast autonomy as early as 1969, but once in power the Sandinistas began to renege. A reason could always be found for not acceding to MISURASATA desires for regional independence. In addition, Sandinista *comandantes* noted disparagingly that Miskito communal economics made the Indians peculiarly underdeveloped from a Marxist standpoint.

The Sandinistas promptly flooded soldiers and military installations into the Miskito coast. As the region closest to the FSLN's Cuban benefactors, the Miskito Coast warranted a military presence that numbered 7,000 soldiers in early 1981. The Miskitos may have had a martial past, but they were genuinely afraid of men who fired guns for reasons other than hunting, and did so with little cause they could see. Sandinista assurances that their troops trained with blanks and not live ammunition did nothing to allay Miskito fears.

A heavy Sandinista propaganda campaign in the coast region reinforced the belief that the "Spaniards" were lousy Christians, and now spread the notion that they were also dangerous radicals. Posters of Lenin and Ho Chi Minh glued to public buildings in Puerto Cabezas were not just mildly distasteful, but very offensive to many of the inhabitants who resented the FSLN's paternalistic interest in their political consciousness.

But the biggest Miskito grievance was the presence of thousands of Cuban doctors, nurses and teachers. The doctors and nurses were viewed as haughty, unconcerned about their patients' health, prone to withhold treatment for political reasons, and usually incompetent. The teachers were viewed as similar to the Sandinistas in that they were propagandists for atheistic Marxism. Furthermore, the Atlantic Coast already had a relatively high rate of literacy, and there was a general feeling that Miskito teachers would be far more appropriate than the godless foreigners, who were keeping local teachers out of work.

Despite its Sandinista roots, the constituency of MISURASATA was Miskito, not Sandinista. Fagoth led peaceful Miskito resistance to the FSLN's Atlantic policies and broke dramatically with his old allies from the other Nicaragua. As a result, he was jailed in February 1981, sparking even more demonstrations. Indians began to flee to Honduras, which had a sizable Miskito minority of its own.

Zelaya was a major problem for the FSLN. Characteristically, the Sandinistas responded with ham-handed violence. But force could not quiet the Indians. Fagoth, their undisputed leader, was released with the understanding that he would try to calm the Indians, then go into exile in a Communist country. But he fled to Honduras himself by way of Puerto Cabezas and made contact with the anti-Sandinista exiles. Steadman Fagoth was now a contra.

At least 25000 Miskitos have fled Nicaragua, and about that many more have been forcibly relocated by the Sandinistas away from contra-infested areas. These relocations have only further alienated a people already hostile toward *sandinismo*. Sometimes relocated Indians have broken through the generally weak security forces of these camps and escaped to Honduras (as one large group from the new "settlement" of Francia Serpe did in September 1983).

The Indian resistance is badly fractured. The rump of MISURASATA under Brooklyn Rivera aligned itself with the ARDE in 1983 and angrily denounced the FDN-allied Indians, whom Pastora called "worse than Sandinistas". Affiliated with the FDN are Steadman Fagoth and the bulk of the armed Miskitos who are now organized under the name of MISURA. The possibility of reconciling these old friends and their groups appears remote, as there has been too much said and too many feelings hurt.

The Miskito contribution to the anti-Sandinista cause has been erratic. Hindered by fractionalism and a tendency to, in Fagoth's words, "fight one day and farm the next", the Miskitos have not been generally the most committed of soldiers. The exiled Miskitos passionately wish to see their homeland freed and left alone. But they also want to preserve their culture, one that does not place a high value on hunting other human beings. Consequently some exiled Miskitos have given up the fight in order to go home and keep their culture and language alive. There is a persistent fear that the Miskito culture could die in the crucible of war, and some Miskitos feel that the risk is not worth the fight.

But the Miskitos, primarily those in MISURA, have one achievement attained by neither the FDN nor the ARDE. Miskito contras have operated from permanent camps deep in Nicaragua instead of bases in Honduras or Costa Rica. If the FDN could likewise move some of its bases forward into Nicaragua,

it would take a giant step toward toppling the FSLN from power.

Some of the specialized commando units operating out of Honduras have been composed of Miskitos. A unit of Indian frogmen, for example, successfully raided the port facilities of Puerto Cabezas in January 1983. There is also a 100-man MISURA commando named *Lakya Tara* ("Big Star"); surprisingly it was trained in hand-to-hand combat, the martial arts, and booby traps by Japanese military advisors. The Miskitos are the quintessential irregular force in the contra war. They are strategically undependable, yet capable of feats so far out of reach of their better supplied and more prominent allies as to be embarrassing. In short, they show both the positive and negative attributes of people who would rather not fight, but do so for immediate, personal and compelling reasons.

SANDINISTA MILITARY FORCES

According to the Sandinistas, the most important task of the Nicaraguan people is the defense of the revolution, by military force if need be. Now it is necessary for the FSLN to employ formal military forces to remain in power.

The first Defense Minister of post-Somoza Nicaragua was Bernardino Larios, a former National Guard colonel named to placate the United States. But Larios never had any real power, and was soon out of office and in a Sandinista prison. He was replaced by Humberto Ortega, the brother of current president Daniel Ortega. Humberto's appointment was not so much a change in leadership but the formal affirmation of FSLN supremacy in matters of defense.

The force that fought the National Guard in 1979 was highly irregular. Its weaponry was of mixed Western European and American manufacture, with the Cuban-supplied and Belgian-manufactured FAL as the primary rifle and the United States M14 and West German G3 as secondary weapons. The people who carried these weapons were also something of a mixed bag. The FSLN "army" was overwhelmingly Nicaraguans, but there were significant numbers of foreigners. Many were Marxist "internationalists" from elsewhere in Latin America, but there were those who were not. There was even a unit of Panamanian volunteers raised by Hugo Spadafora (until 1978 the Vice Minister of Health in Panama). Demonstrating that Spadafora's unit had the approval of Panamanian kingpin General Omar Torrijos, it had as soldiers not only members of the Panamanian National Guard but Torrijos' younger son, Martin.

The FSLN army began to shrink soon after the fall of Tacho. Many had joined in the final stages of the insurgency, and most went home to their old jobs. All of the foreigners were sent home. Dr. Spadafora returned to Nicaragua a few years later, but it was to fight on the side of the Miskitos.

The *Sandinista Popular Army* (EPS) was formed officially on 18 August 1979 by the stridently Leninist Humberto Ortega Saavedra. Almost immediately, it began to re-equip with new Soviet weapons and reorganize under the tutelage of Cuban advisors. The weapons used to overthrow Somoza were in turn sent abroad to other revolutionary groups, particularly the FMLN. Within a year, the EPS had taken on a decidedly Soviet-bloc look.

It was also far bigger than the old National Guard. In 1980 the EPS counted over 24000 soldiers. By 1985, spurred by the contra war and fed recruits by universal male conscription instituted in October 1983, the EPS had 70000 troops. There can be no doubt that this army was formed as much to defend Marxism-Leninism as the National Guard was taken over to defend *somocismo*. Defense Minister and army commander Ortega gave a speech to a gathering of army and military officers that was not meant for public consumption, but which left no doubt whatsoever of FSLN ideology. In part, Ortega said:

"We [the FSLN] are saying that Marxism-Leninism is the scientific doctrine that guides our revolution, the instrument of analysis for understanding [the revolution's] historical process and for carrying out our revolution; *sandinismo* is the concrete expression of the historical development of the fight in Nicaragua. Without *sandinismo* we cannot be Marxist-Leninists, and with Marxism-Leninism cannot be revolutionary. For that reason they are indissolubly united and for that reason our moral force is *sandinismo*, and our doctrine is Marxism-Leninism."

Even had he dispensed with the jargon, Ortega could not have made the ideology of the FSLN more plain.

Though the EPS is primarily an infantry army, it has a surprisingly substantial armored force. In mid-1981, the Sandinistas acquired about 30 second-hand Soviet-built T55 tanks from Algeria. This first shipment of tanks was put into storage near Managua, but more tanks continued to arrive and not all of them were mothballed. By late 1984, Nicaragua had more than 100 T54s and T55s.

At the same time, the Sandinistas received a wide variety of other military vehicles of Soviet and East European origin. By late 1984, the EPS had over 20 PT76 amphibious light tanks and approximately 120 other armored fighting vehicles, including BRDM2 recon vehicles. They also had more than a thousand trucks of Soviet and East German manufacture.

The Soviets have also provided the Sandinistas with defense against aerial attacks upon their revolution. Nicaragua has about 120 each of anti-aircraft guns and surface-to-air missiles, plus about 700 SA-7 shoulder-fired missiles. With a large armored force and substantial air defenses, the EPS is more than a one-dimensional force of foot soldiers in the mountains and forests.

The FSLN has responded to the contra threat by not only expanding its army to the largest in Central America but by creating specialized anti-guerrilla units. The EPS now has twelve "light hunter battalions". They were apparently first deployed in 1985, and half were formed in the first part of 1986. These units number between 400 and 600 soldiers each and are trained in counterinsurgency. The light hunter battalions are assigned to specific areas, which they aggressively patrol in company-sized forces of about 100 men. Their advantages are their aggressiveness in taking the war to the contras, special insurgency training, and intimate knowledge of their assigned areas from which their recruits are drawn. They also cooperate closely with local militia units that guard potential guerrilla targets such as farms and villages, thereby fitting into an integrated anti-guerrilla strategy.

Supporting the light hunter battalions are fifteen "irregular warfare battalions" (BLIs). These appear to have been first raised at about the same time as the light hunter units, and seem to be similar in operation. However, the BLIs are intended to be moved quickly from distant locations to meet contra threats as they develop. Components of BLIs are often transported by Soviet-built Mi-8 or Mi-17 helicopters. In the past the Sandinistas have lacked the airlift capacity to transport an entire BLI by air, but the acquisition of new Mi-17s makes this probable in 1987.

Under the command of the Interior Ministry is a special forces unit called the *Pablo Ubeda Brigade*. It is reported to have seen action, but its nature is so shadowy that it is impossible to even reasonably speculate as to its organization, equipment, or strategic role. It is even impossible to determine the year that the *Pablo Ubeda Brigade* was created.

Supporting the EPS is the *Sandinista Popular Militia* (MPS). Formed in February 1980 by Pastora, its purposes were to accommodate young Nicaraguans who had fought alongside the FSLN

in 1978 and 1979 and who wished to stay in the army, and to provide a ready manpower reserve. It is noteworthy that the MPS was formed when Sandinista Nicaragua faced absolutely no significant external or internal threat. Since its foundation, the MPS has performed in a variety of military and political roles. At the beginning of the contra war, it bore the brunt of the Sandinista effort, patrolling regions and attacking contra units as well as defending against raids. The MPS relinquished much of this responsibility in February 1983 to the army, and now concentrates on static defense.

The MPS is also intended for use against any invasion by the United States. Theoretically, the Sandinista militia can muster large numbers of part-time soldiers to defend population centers from foreign attack. But whether MPS units would materialize in significant force against United States intervention is open to speculation, as is their ability to stand and fight for even limited periods against the superior weapons, training, and unit cohesiveness of the Marines and paratroopers they would face.

The militia performs a vital political function by supplying some of the manpower of the *turbas divinas*, which fall under the direction of the Interior Ministry. Thus the MPS has had a hand in fighting the contras, guarding against a United States invasion, and intimidating those who have earned the ire of the Sandinista government.

Future Sandinista strategy against the contras heavily depends on the use of airpower. As of August 1986, United States intelligence estimates placed the number of helicopters in the Sandinista air force (itself a part of the EPS) at 25 Mi-17s and a few older Mi-8s. In addition, the Sandinistas have at least six potent Mi-24 "Hind" gunships. The number of helicopters available to the Sandinistas will expand through 1987, and air-mobility of infantry units, especially the BLIs, will consequently increase, as will FSLN dependence upon aerial transport and fire support.

The Sandinistas claim to be prepared to augment their air force by acquiring MiG fighters from the USSR. Runways throughout the country have been lengthened to permit jet fighters. Furthermore, Nicaraguan pilots have been training to fly MiGs in Bulgaria since late 1979 or early 1980. Acquisition of jet fighters would almost certainly lead to a military response by the United States, which has said repeatedly that it will not tolerate MiGs in Nicaragua. United States military action would probably take the form of surgical airstrikes or a naval "quarantine" similar to that used in the Cuban Missile Crisis of 1962. But an invasion is not entirely out of the question.

There has been a clear evolution in the Nicaraguan defense establishment since July 1979. In the beginning, the defense of the Sandinista regime rested on a motley assortment of former guerrillas armed with a variety of predominately United States and Western European weapons sent by such diverse benefactors as Venezuela and Cuba. Then, as the foreigners were sent home, Cuban advisors arrived, as did fresh Soviet equipment. The EPS and MPS quickly took on the look of a Soviet bloc military establishment, even placing a political officer as deputy commander in each EPS battalion. It was the *Sandinista* Popular Army, not the Nicaraguan Popular Army, and it was intended to defend *sandinismo* as much or more than the soil of Nicaragua.

Then the contras challenged the Sandinistas. This forced the FSLN to form new, specialized counter-insurgency units in the mid-1980s. Militarily, Nicaragua has come full circle—from the National Guard to the Sandinista Guard.

CONCLUSIONS

The contras have a reputation in many circles as at best retrogressive and at worst downright *somocista*. The word "contra" itself is a contraction of *contrarevolucionario*, which (with "bourgeois") is a favorite Sandinista invective used against anyone who objects to anything from Lenin's peculiar interpretation of Marx to Sandinista rationing of toilet paper. The *campesinos* who stream into Honduras to join the FDN are hardly insulted by the label, however.

Accusations that the contras, in particular the FDN, are indelibly *somocista* are false, despite the National Guard roots of the contra movement. A new generation of contras, far different in composition than the Fifteenth of September Movement, now fights the FSLN. Writing in the September/October 1985 issue of *Problems of Conflict*, Jiri and Virginia Valenta concluded that of the 19000 men then in all contra organizations, no more than 3000 were veterans of the National Guard. In the oft-maligned FDN, only one to three percent of combatants are former Guardsmen. The vast majority were recruited from the disenchanting farmers of the northern departments, and 19 percent were actually disillusioned former Sandinistas.

The current contra leadership is likewise non-*somocista*. Enrique Bermudez may be a former National Guard colonel, but he lacks the personal charisma and ambition to function politically as an Anastasio Somoza Garcia. Adolfo Calera, his former superior, has an impeccable record of opposition to the Somoza dynasty. The functioning contra groups are now under the umbrella of the *United Nicaraguan Opposition* (UNO), a political front headed by Adolfo Robelo and Arturo Cruz. Robelo was a member of the FAO and the Junta for National Reconstruction, and was a close associate of Pastora in the ARDE. Cruz succeeded Robelo as junior member, was president of the Central Bank after the fall of Somoza, and ran for president against Daniel Ortega in 1984.

The most important military man in the contra movement is Bermudez, and the movement is dominated politically by the triumvirate of Calero, Bermudez and Cruz. Should the contras take power, these four men will be the ones to run Nicaragua. They lack the style and the political orientation to set up a corrupt dictatorship on the Somoza model or on any other.

There was one contra who had the force of personality and ambition necessary to establish a traditionally personalistic Central American dictatorship. Despite his protestations to be a democrat, one wonders whether Eden Pastora's commitment to democracy or his ambition would triumph should the two come into conflict. But a Pastora dictatorship would probably bear little resemblance to the Somoza one given Pastora's hostility to all things and people connected with the old dynasty. His regime would be *pastorista*, not *somocista*. But as he is retired from the conflict, at least for the time being, this is a moot point.

Frank Arana of the FDN was quoted in August 1986 as saying, "We [the contras] will be in Managua by the end of 1987. The resumption of American military aid is reason to believe that contra fortunes could not be better, but Arana is overly optimistic. It is unlikely that the FDN could defeat a Sandinista army of growing size, firepower, experience and sophistication in such a short time.

But if Nicaragua has an "Achilles" heel it is the economy. Abetted by a crop-destroying drought, the Sandinista economy is one of the great basket cases. Even the most essential items are in very short supply here due to a shortage of foreign exchange. Unless the Sandinistas can reverse the situation soon, a total economic collapse is inevitable sometime in the next few years, or perhaps even months.

The contras can hasten the collapse of Nicaraguan economy by concentrating their attacks upon targets of economic value. Such targets include farms, bridges, ports (which can be attacked by frogmen teams or speedboat as well as more conventional guerrillas. Even nascent FDA and ARDE air forces have been used to raid ports and airports.

A most important target is the coffee crop, which is the most important earner of foreign exchange. The contras have harassed coffee production, and it can be expected that growing and harvesting the crop will become increasingly more hazardous in Nicaragua.

The contras are in for a long war. The United States government seems to agree, as a focus for training to be administered to contras in Honduras by United States Army Special Forces advisors is strategy for a protracted conflict. Frank Arana's optimism is misplaced.

Should the contras ever take power after the defeat of the EPS and MPS (highly improbable) or the collapse of the national economy, it will be the FDN that is the ruler of the country. But, considering the ravages of the war to date and the self-destruction of the economic system, it may well be the Western Hemisphere's most striking example of devastation and attendant chaos. The tragedy is that it did not have to be this way.

SCENARIO DESIGN GUIDELINES

Players designing *FIREPOWER* scenarios on the contra war must carefully consider the terrain of the areas in Nicaragua where most of the fighting has taken place. The FDN's theater of operations is very mountainous, heavily forested, and sparsely populated. Unless known to be otherwise, roads should be considered unpassable.

The ARDE's area of operations is not as wild—but not by much. The primary difference is that in the south the population is higher and not quite as scattered as in the north. Furthermore, the region where the ARDE fought is bounded by savannah, a terrain feature very rare in the northern departments. The Miskitos fight in the most sparsely populated area of all; Zelaya is predominately lowland swamp with heavy forest.

Generally, the contras were the best armed and equipped from 1982 to late 1984. From 1985 through late 1986, they had to rely on a greater mixture of weapons and organization was sometimes improvised. It appears that the contras will now have a greater quality and uniformity of equipment and organization from 1987 on. The FDN has been the best equipped force, followed by the ARDE, who in turn were trailed by MISURA and MISURASATA. In all organizations, radios should be regarded as rare and extremely undependable.

EPS began its life as an irregular force equipped with an assortment of Western European and United States weapons, with the FAL as the most common assault rifle. But from early 1980 on, it has been an essentially Soviet bloc force in weapons and organization. The MPS, with a variety of tasks, should be treated as a more irregular and generally inferior force.

Squad Groups (Points Computed for 5-Turn Game)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 10×RFL5 or RFL10 or RFL14. (155 points; Group 6)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 10×RFL1. (125 points; Group 5)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 5×RFL5 or RFL10, 5×RFL1. (140 points; Group 6)

Contra Guerrilla Squad (1981 on): 3/3; 1S; 1×MPL20, 8×RFL10. (203 points; Group 8)



Contra Guerrilla Squad (1981 on): 3/2; 1C, 1S; 1×LMG4, 9×RFL5 or RFL10 or RFL14. (183 points; Group 7)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 1×LMG4, 9×RFL1. (149 points; Group 6)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 1×GLR2, 8×RFL10, 1×RFL13 (M2), 1×SMG7. (155 points; Group 6)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 1×LMG4, 2×RFL10 or RFL14, 7×RFL1. (155 points; Group 6)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 1×MPL20, 9×RFL5 or RFL10. (152 points; Group 6)

Contra Guerrilla Squad (1981 on): 3/2; 1S; 4×RFL1, 4×RFL10, 2×RFL13 (M2). (131 points; Group 5)

Border Raider Squad (1979-1980): 3/2; 1S; 4×RFL7, 4×RFL5, 2×SMG7. (113 points; Group 5)

FDN Guerrilla Squad (1987 on): 3/2; 1S; 1×LMG4, 1×GLR2, 8×RFL5. (176 points; Group 7)

FDN Guerrilla Squad (1987 on): 3/2; 1C, 1S; 1×MPL20, 8×RFL5, 1MRT6. (183 points; Group 7)

FDN Guerrilla Squad (1987 on): 4/2; 1S; 1×LMG4, 1×GLR2, 8×RFL5. (233 points; Group 9)

FDN Guerrilla Squad (1987 on): 4/2; 1C, 1S; 1×MPL20, 8×RFL8, 1×MRT6. (240 points; Group 10)

Sandinista Infantry (EPS) Squad (1980 on): 4/2; 1S; 1×LMG20, 1×MPL20, 6×RFL1. (157 points; Group 6)

Sandinista Infantry (EPS) Squad (1980 on): 4/2; 1S; 1×LMG20, 1×MPL20, 7×RFL1. (180 points; Group 7)

Sandinista Light Hunter or BLI (EPS) Squad (1985 on): 4/2; 1S, 1A; 1×LMG20, 1×MPL20, 7×RFL1. (176 points; Group 7)

Sandinista Militia (MPS) Squad (early 1980 on): 3/2; 1S; 1×LMG20, 6×RFL21, 1×SMG7 or SMG11. (95 points; Group 4)

Sandinista Militia (MPS) Squad (early 1980 on): 3/2; 1S; 7×RFL1, 1×SMG7 or SMG11. (95 points; Group 4)

Sandinista Infantry (EPS) Squad (1979-1980): 3/2; 1S; 1×LMG11, 7×RFL5 or RFL11 or RFL14. (131 points; Group 5)

Sandinista Infantry (EPS) Squad (1979-1980): 4/2; 1S; 1×LMG11, 7×RFL5 or RFL11 or RFL14. (173 points; Group 7)

Sandinista Infantry (EPS) Squad (1979-1980): 3/2; 1S; 1×LMG5, 7×RFL5 or RFL11 or RFL14. (152 points; Group 6)

Sandinista Infantry (EPS) Squad (1979-1980): 4/2; 1S; 1×LMG5, 7×RFL5 or RFL11 or RFL14. (201 points; Group 8)

Contra Weapons: GLR2 (rare to 1987), GLR3 (M203—very rare); GMG4 (M60); LCW3; LPL3; MPL13, MPL19, MPL20; MRT6 (M19); PST1, PST2 (HP35), PST3 (TT33, Super Star); RFL1 (AK47, Type 56-1), RFL5 (FAL), RFL7 (various hunting rifles—no grenade launcher or bayonet; or M1903 for training purposes), RFL10 (M16A1; also semi-automatic M16=4 points), RFL13, RFL14, RFL18 (M1 Garand); SMG1 (rare), SMG7 (Uzi, VZ23, VZ25).

Contra Vehicles: TRK2 (Weapon 31).

Sandinista Weapons: GMG4 (PK, PKM), GMG5 (MG42/59); LCW1; LMG11 (FAL), LMG20, LMG21; MPL19, MPL20; MRT13 (M1937—Type 53); PST2 (HP35), PST3 (TT33), PST4 (PM);

RFL1 (AK47), RFL4 (AR—inherited from the Somoza military and rarely used), RFL5 (FAL), RFL8 (Moisin-Nagant Sniper Rifle), RFL10 (M16A1—inherited from the Somoza military and rarely used), RFL11, RFL14, RFL19 (SVD), RFL21 (SKS); SMG7 (uzi, VZ23, VZ24, VZ25, VZ26), SMG11 (APS).

Sandinista Vehicles: APC1 (1980 on); LTK4 (1984 on); MBT15 (mid-1981 on); RCV3 (1980 on); TRK2 (Weapon 32, 1980 on).

The purpose of the following scenarios is to give the *FIREPOWER* player a feel for the civil war in Nicaragua. Most are the kinds of actions that took place in the indicated years. "Blazing Tooth" is based on an actual ARDE campaign that saw such assaults on about a dozen towns. "San Juan del Norte" simulates a part of another actual battle, as does "Flight to the Coco".

Players are strongly urged to use the following optional rules:

- 16.2—Assorted Optional Firing Modifiers
- 16.4—Suppression by Non-Automatic Weapons
- 16.6—Pinned and Inactive Status
- 16.7.2—Optional Nightsight Rules
- 16.8—Extra Major Personal Weapons
- 16.9—Standing Behind "2" Height Cover
- 21.—Fires
- 23.—Wounds and Cover
- 24.—Morale

This list is derived from Michael Craighead's "Play-tester's Note" to my article "Struggle for El Salvador" in *THE GENERAL* (Vol. 22, No. 6). Players would do well to consult Mr. Craighead's comments regarding *FIREPOWER* in the setting of a guerrilla war.

The victory conditions of the following scenarios are consistent with the Victory Condition rules on page 42 of the *FIREPOWER* Battle Manual. For scenarios in which victory points are part of the victory conditions, each player receives one point for each wounded or eliminated enemy soldier and two points for each enemy soldier taken prisoner.

The orders of battle are self-explanatory, but one note must be made about contra weapons. The RFL10 is a standard fully automatic M16A1, and the RFL7 is a hunting rifle in all scenarios. The semi-automatic M16 and the M1903 are included in the Contra Equipment Lists above for DYO scenarios only, and are not represented in any of the following.

SCENARIOS

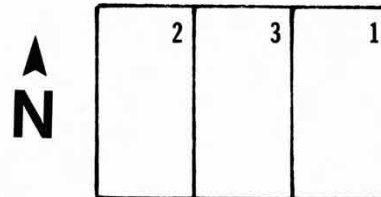
The following scenarios are based on actual battles and campaigns in Nicaragua between 1980 and 1986.

"BORDER RAIDERS 1980"

Soon after the flight of Anastasio Somoza Debayle and the disintegration of his National Guard, former Guardsmen exiled in El Salvador and Honduras coalesced into a number of armed groups that commenced raiding into Nicaragua. Depending upon one's point of view, these organizations were either the first bands of freedom fighters or bandits who terrorized recently liberated *campesinos*. In any event, they were the seeds of the contra movement.

The most noteworthy raider group was the Fifteenth of September Legion, which would eventually be a core group of the Nicaraguan Democratic Force. In this scenario, a unit of the Legion encounters a Sandinista Popular Army squad that has not fully made the transition from irregular insurgent unit to part of the regular standing army. The engagement takes place in the mountain wilderness of Nueva Segovia department near the Honduran border.

A. MAPBOARD TERRAIN: Ignore all buildings and fences. All free-standing walls, hedges, the well, and dark green hexes as well as tree hexes are considered tree hexes. Hills are height "4"; depressions are height "−2". Roads are unpaved.



B. SPECIAL RULES: Game length is 5 Turns. Fifteenth of September Legion units may exit off the north mapboard edge, and Sandinista units may exit off the south edge.

WEATHER: Normal.

VISIBILITY: Condition 1.

FIRES (OP): Normal.

C. OPPOSING FORCES:

a. Sandinista Infantry Squad (−): Set up first within four hexes, inclusive, of the south board edge. 3/2; 1C, 1S; 1×LMG11, 5×RFL5, 2×PST2; 1×BNC, 2×RGN2 (G only), 21×HGN3 and/or HGN5 (G only), 1×SHG (143-114-28 points).

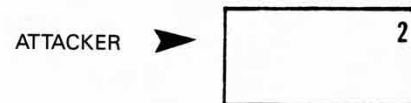
b. Fifteenth of September Legion Squad: Set up second within four hexes, inclusive, of the north board edge. 3/2; 1S; 4×RFL5, 4×RFL7, 2×SMG7 (Uzi); 2×SCP (for RFL7 only), 5×HGN3 and/or HGN5 (G only), 5×HGN8, 1×SHG (143-131-12 points).

D. VICTORY CONDITIONS: Each side receives two victory points for each of its surviving, unwounded soldiers on the opposite side (i.e., past the mapboard fold) of the mapboard at the end of the game. If one squad is panicked at the end of Turn 5, the other side wins regardless of the victory point count.

"A TRAP FOR THE MILITIA 1982"

In the early stages of the contra war, the Sandinistas relied on their MPS rather than the full-time regular soldiers of the army. In this scenario, a militia patrol is ambushed in the Jinotega department by a squad of the Nicaraguan Democratic Force.

A. MAPBOARD TERRAIN: Only mapboard panel 2 is used.



All dark green hexes, as well as tree hexes, are considered tree hexes. Ignore fences. All roads are unpaved.

B. SPECIAL RULES: Game length is 3 Turns. Attackers exit off either or both short sides. Defenders exit off either or both long sides. Players decide on which side the attacker enters by agreement of competitive die roll. Defender sets up secretly as per "Ambush" special rules (on page 45 of *FIREPOWER* Battle Manual). Attacker enters in accordance with the same set of special rules.

WEATHER: Roll the die: "1-8"—Normal; "9-10"—Mud.

VISIBILITY: Roll the die: "1-7"—Condition 1; "8"—Condition 2; "9-10"—Condition 3. If

Observation Conditions 2 or 3, roll the die again: "1-4"—raining; "5-6"—Fog; "7-10"—Night.

FIRES (OP): Wet if Mud or Raining—otherwise Normal.

C. OPPOSING FORCES:

a. Defenders: FDN Guerrilla Squad: 3/2; 1S; 1×LMG4, 8×RFL5, 1×SMG7 (Uzi); 1×BPD; 1×BNC, 15×HGN3 and/or HGN5, 1×PST2 (for LMG), 1×PMN1 (121-102-19 points).

b. Attackers: Sandinista Popular Militia (242-190-52 points).

1st Sandinista Militia Squad (+): 3/2; 1C, 1S; 1×LMG20, 6×RFL1, 2×SMG11.

2nd Sandinista Militia Squad (+): 3/2; 1S; 1×LMG20, 8×RFL21, 1×SMG7 (VZ23); 1×SCP.

3rd Sandinista Militia Squad (—): 3/2; 1S; 7×RFL21, 1×PST3.

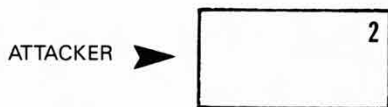
Extra Equipment: 2×BNC, 48×HGN3, 2×PST3 (for LMG), 1×SCP.

D. VICTORY CONDITIONS: Each side gets two victory points for each surviving soldier that exits the mapboard during Turn 3. Defending soldiers must exit off the long sides of the mapboard and attacking soldiers must exit off the short sides of the mapboard to receive these points.

"COFFEE HARVEST 1985"

Nicaragua has sometimes been referred to as a "banana republic". But this pejorative is not in the least true, as its chief cash crop is coffee. Since their formation, the contra groups have attacked the Nicaragua coffee harvest in the hope of further eroding an already disastrous economic system and, ideally, bringing the reign of the FSLN to an end. In this scenario, EPS soldiers and light armor escort one of the vital convoys of loaded coffee trucks from a state farm in Matagalpa to warehouses in the department capital. Lying in wait are men of the FDN.

A. MAPBOARD TERRAIN: Only mapboard panel 2 is used.



All dark green and brown hexes, as well as tree hexes, are considered tree hexes. Ignore all fences and hedges. Hills are height "4"; depressions are height "—3". The east-west road and all road intersection hexes are paved; all north-south side roads are unpaved. Hexes 2DD5, 2CC6, 2CC3, 2E5, 2D5, 2E2 and 2D2 are unpaved.

B. SPECIAL RULES: Game length is 3 Turns. Attackers exit off either or both short sides of the mapboard. Defenders exit off either or both long sides of the mapboard. Players decide on which side the attacker enters by agreement or competitive die roll. Defender sets up secretly as per "Ambush" special rules (on page 45 of *FIREPOWER* Battle Manual). Attacker enters in accordance with the same set of special rules. At no time can the Sandinista truck carry passengers.

WEATHER: Roll the die: "1-7"—Normal; "8-10"—Mud.

VISIBILITY: Condition 1.

FIRES (OP): Wet if Mud—otherwise Normal.

C. OPPOSING FORCES:

a. Defenders: FDN Guerrilla Squad (+): 3/2; 1S; 1×LMG4, 1×MPL20, 9×RFL10; 1×BPD; 1×BNC, 33×HGN3 and/or HGN5, 5×MPL20AMO, 1×LPL3, 2×PST3 (for LMG and MPL), 4×SFX, 1×PMN1 (180-114-66 points).

b. Attackers: Sandinista Popular Army (361-285-76 points).

1st Sandinista Infantry Squad (+; includes BRDM2 crew and truck driver): 4/2; 1C, 1S; 1×LMG20, 1×MPL20, 6×RFL1, 4×SMG7 (VZ23), 1×BPD; 1×RCV3, 1×TRK5.

2nd Sandinista Infantry Squad: 4/2; 1S; 1×LMG20, 1×MPL20, 6×RFL1; 1×BPD.

Extra Equipment: 2×BNC, 50×HGN3, 8×MPL20AMO, 4×PST3 (for LMG and MPL), 2×SHG.

D. VICTORY CONDITIONS: Each side gets two victory points for each surviving soldier that exits the mapboard during Turn 3—including those in or on vehicles. The Sandinista player receives double victory points for each soldier, including the BRDM2 crew and truck driver, that exit from the side opposite entry. The Sandinista player also gets ten bonus victory points if the truck exits off the side opposite entry. As in all ambushes, units must exit the panel in the final game turn only in order to earn victory points.

"CAZADORES Y CAZADOS 1986"

The Sandinistas have responded to the contra threat by deploying Light Hunter Battalions in northern Nicaragua. Here, soldiers of a Light Hunter Battalion based in the hotly contested department of Nueva Segovia ambush FDN guerrillas returning to their Honduran base after raiding into Nicaragua.

A. MAPBOARD TERRAIN: Only mapboard panel 3 is used.



Treat dark green, brown, hedge, fence and free-standing wall hexes, as well as tree hexes, as tree hexes. Ignore all buildings and fences. Hills are height "3"; depressions are height "—2". Roads are unpaved.

B. SPECIAL RULES: Game length is 3 Turns. Attackers exit off either or both short sides of the mapboard. Defenders exit off either or both long sides of the mapboard. The Attacking forces enter the south edge of the mapboard. Defender sets up secretly as per "Ambush" special rules (on page 45 of *FIREPOWER* Battle Manual). Attacker enters in accordance with the same set of special rules.

WEATHER: Roll the die: "1-8"—Normal; "9-10"—Mud.

VISIBILITY: Roll the die: "1-7"—Condition 1; "8"—Condition 2; "9-10"—Condition 3. If Observation Conditions 2 or 3, roll the die again: "1-4"—Raining; "5-6"—Fog; "7-10"—Night.

FIRES (OP): Wet if Mud or Raining—otherwise Normal.

C. OPPOSING FORCES:

a. Defenders: Sandinista Light Hunter Battalion: 4/2; 1C, 1S, 1A; 1×LMG20, 1×MPL20, 7×RFL1; 2×NST, 1×BPD; 1×BNC, 30×HGN3, 4×MPL20AMO, 2×PST3 (for LMG and MPL), 1×SHG, 1×PMN1 (162-117-45 points).

b. Attackers: FDN (324-264-60 points).

1st FDN Guerrilla Squad (+): 3/2; 1C, 1S; 1×MPL20, 5×RFL1, 5×RFL10, 1×SMG7 (Uzi); 1×SCP.

2nd FDN Guerrilla Squad (—): 3/2; 1S; 1×LMG4, 6×RFL10, 1×RFL13 (M2).

3rd FDN Guerrilla Squad (—): 3/2; 1S; 1×MPL19, 7×RFL14; 1×SCP.

Extra Equipment: 2×BNC, 2×RGN2, 35×HGN3 and/or HGN5, 3×MPL19AMO,

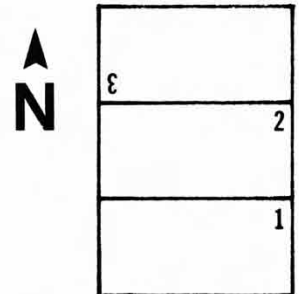
3×MPL20AMO, 3×PST3 (for LMG and MPL), 2×SHG.

D. VICTORY CONDITIONS: Each side receives two victory points for each surviving soldier that exits the mapboard during Turn 3. Defending soldiers must exit off the long sides of the mapboard and attacking soldiers off the short sides to receive these points. The attacking player receives four victory points for each surviving soldier (instead of two) that exits off the north edge of the mapboard on Turn 3.

"BLAZING TOOTH 1983"

Eden Pastora Gomez, also known as "Comandante Zero" (*Comandante Cero*), was one of the great heroes of the FSLN. In fact, it can be argued that the Sandinistas would not have been able to seize power in 1979 were it not for Pastora. But Pastora broke with his old comrades and formed the Democratic Republican Alliance, which commenced operations along the Costa Rican border in the spring of 1983. Its most ambitious operation was "Blazing Tooth", in which about 1000 ARDE contras launched an offensive along a broad front in Rio San Juan department. They drove forty miles into Nicaragua and attacked about a dozen towns, but in the end none fell to the ARDE.

A. MAPBOARD TERRAIN: All walls and fences are of wood plank construction. Hills are height "1"; depressions are height "—1". Roads are unpaved.



B. SPECIAL RULES: Game length is 6 Turns. The Sandinistas may exit off any outer side of panel 3. The ARDE may exit off the south edge of panel 1 only. The ARDE player receives two "bonus" Impulse Phases to enter the mapboard. Any desired actions may be performed during these bonus phases, following which the normal draw of sequence chips commences.

C. OPPOSING FORCES:

a. EPS and MPS (Defenders): Set up in any whole hex of panel 3 or any hex of panel 2 north of hex-row 6 inclusive. (574-487-87 points)

Sandinista Infantry Squad (+): 4/2; 1C, 1S; 1×MMG4, 1×MPL20, 8×RFL1, 1×PST4.

1st Sandinista Militia Squad: 3/2; 1S; 7×RFL1, 1×SMG7 (VZ24); 1×BPD.

2nd Sandinista Militia Squad: 3/2; 1S; 1×MPL19, 7×RFL1; 1×BPD.

Extra Equipment: 2×BNC, 2×RDO, 42×HGN3, 4×MPL19AMO, 5×MPL20AMO, 3×PST3 (for EPS MMG and MPL), 4×SFX.

b. ARDE (Attackers): Enter on the south edge of panel 1 during "bonus" Impulse Phases. (723-626-97 points).

1st ARDE Guerrilla Squad: 3/2; 1C, 1S; 1×LMG4, 1×MPL20, 8×RFL5, 1×SMG7 (VZ23); 1×BPD.

2nd ARDE Guerrilla Squad: 3/2; 1S; 1×GLR2, 9×RFL5; 1×BPD.

3rd ARDE Guerrilla Squad: 3/2; 1S; 1×LMG4, 1×MPL20, 8×RFL5; 1×BPD.

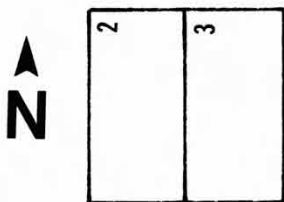
Extra Equipment: 4×BNC, 60×HGN3 and/or HGN5, 10×MPL20AMO, 4×GLR2AMO, 5×PST3 (for LMG, MPL, GRL), 2×SHG.

D. VICTORY CONDITIONS: The ARDE player wins in either of two ways: by possessing two buildings on panel 3 at the end of the game, or if any two Sandinista squads are panicked at the end of Turn 6. The Sandinista player wins by avoiding ARDE victory conditions.

“MISKITO COAST 1984”

The Miskito Indians of the Yelá department are not a warlike people. But the highly offensive actions and attitudes of their Sandinista and Cuban overlords, administrators, health professionals, teachers and propagandists drove many to arms. Here, a Miskito village loyal to MISURASATA resists efforts by the EPS to bring it back to the way of socialist progress.

A. MAPBOARD TERRAIN: All dark green hexes, as well as tree hexes, are considered tree hexes. Hills on panel 2 are height “2”; hills on panel 3 are height “1”. Treat all depressions as level ground. Building 3Q2 is of brick construction; all other are of wood plank construction. All roads are unpaved.



B. SPECIAL RULES: Game length is 4 Turns. MISURASATA soldiers may exit off the east mapboard edge; Sandinista units may exit off the west mapboard edge.

WEATHER: Normal.

VISIBILITY: Condition 1.

FIRES (OP): Normal.

C. OPPOSING FORCES:

a. MISURASATA (Defenders): Set up in any whole hex on panel 3. (290-224-66 points).

1st MISURASATA Guerrilla Squad: 3/2; 1C, 1S; 5×RFL1, 5×RFL10; 1×BPD.

2nd MISURASATA Guerrilla Squad: 3/2; 1S; 1×MPL20, 4×RFL1, 3×RFL7, 2×RFL14; 1×SCP.

Extra Equipment: 10×HGN3 (G only), 10×HGN8, 3×MPL20AMO, 3×SHG; 4×DFX, 1×PMN2.

b. Sandinista Popular Army (Attackers): Set up second in any whole hex of panel 2 west of the north-south road exclusive. (390-322-68 points).

1st Sandinista Infantry Squad: 4/2; 1C, 1S; 1×LMG21, 1×MPL20, 7×RFL1.

2nd Sandinista Infantry Squad: 3/2; 1S; 1×LMG21, 1×MPL20, 6×RFL1.

3rd Sandinista Infantry Squad (-): 3/2; 1S; 1×LMG21, 1×MPL20, 4×RFL1.

Extra Equipment: 4×BNC, 30×HGN3, 12×MPL-20AMO, 6×PST (for LMG and MPL), 2×SHG.

D. VICTORY CONDITIONS: The Sandinista player receives two victory points for each building controlled at the end of the game. Victory points for casualties and prisoners are awarded as usual.

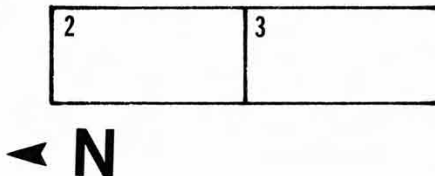
“FLIGHT TO THE COCO 1983”

If the Sandinistas had tried to formulate a plan with the purpose of antagonizing the Miskitos, they

could not have invented one more effective than that implemented to administer the Indian territories. The FSLN should have been the least surprised in Nicaragua when they and their Cuban allies incited the Miskitos to revolt. When the uprising began, the Sandinistas responded with stark repression. Part of this was the wholesale movement of Miskitos from their villages in guerrilla infested territory to relocation centers more easily controlled by the FSLN.

Francia Serpe was one such relocation camp. On the night of 19 December 1983, MISURA guerrillas overpowered the policemen guarding Francia Serpe and open the gates to the inhabitants to escape. Having awaited this moment for some time, the people were prepared and eager to flee to Honduras. On the second day of the 30-mile trek, government soldiers caught up with the rear of the Miskito refugee column. They were met with a MISURA rear guard, which drove them off. Late the next day the Indians crossed the Rio Coco in large canoes. They had reached the safety and freedom of Honduras in time for the Christmas celebration.

A. MAPBOARD TERRAIN: Hexrows 3CC and 2E are at height “-2”, and hexrows 3DD and 2D are at height “-4”. From hexrows 3EE to 2C inclusive there is water (a stream) 24 feet deep at elevation “-4”. Ignore all terrain features in the stream. There is a log bridge between hexes 3BB7 and 2F2 at elevation “0”, and 20 tons capacity. Consider all dark green and all brown hexes, as well as tree hexes, to be tree hexes. Ignore all buildings, walls, fences and the well.



B. SPECIAL RULES: Game length is 8 Turns. MISURA soldiers may exit off any outer edge of panel 2. Sandinista soldiers may exit off the south edge of panel 3.

WEATHER: Normal.

VISIBILITY: Condition 1.

FIRES (OP): WET.

C. OPPOSING FORCES:

a. Sandinista Popular Army (Attackers): Set up first in any whole hex south of hexrow 3K inclusive. (675-622-53 points).

1st Sandinista Infantry Squad: 4/2; 1C, 1S; 1×LMG20, 1×MPL20, 7×RFL1.

2nd Sandinista Infantry Squad (+): 4/2; 1S; 1×LMG4, 1×MPL20, 6×RFL1, 1×RFL19.

Extra Equipment: 3×BNC, 40×HGN3, 8×MPL20AMO, 4×PST3 (for LMG and MPL), 2×RDO.

b. MISURA (Defenders): Set up second. Either squad (player's choice) sets up north of hexrow 2Q inclusive; the other squad sets up anywhere south of hexrow 3W. (462-424-38).

1st MISURA Squad: 4/2; 1C, 1S; 5×RFL1, 4×RFL10, 1×SMG7 (Uzi).

2nd MISURA Squad: 4/2; 1S; 1×LMG4, 2×RFL1, 4×RFL7, 2×PST2, 2×SCP.

Extra Equipment: 1×BNC, 25×HGN3 and/or HGN5 (G only), 10×HGN8, 1×LPL3, 2×SCP.

D. VICTORY CONDITIONS: The MISURA player receives one victory point for each surviving Sandinista soldier south of hexrow 2Q inclusive at the end of Turn 8. The Sandinista player gets two victory points for each Sandinista soldier north of the stream at the end of the game. Victory points for casualties and prisoners are awarded as usual.

“SAN JUAN DEL NORTE 1984”

The area in which the contras operate is generally sparsely populated and heavily defended by EPS and MPS units. Seldom have the rebels been presented with opportunities to size towns and cities, and even less frequently has the fighting been taken to significant population centers.

The first contra group to take a town from the Sandinistas was not the FDN, which has enjoyed the largest share of foreign assistance and has generally had the largest number of men under arms. It was the ARDE, Pastora's group that spent its short life fighting for its own independence and foreign recognition as well as for the overthrow of the FSLN. In April 1984, the ARDE seized the port of San Juan del Norte and struck a political coup against the FDN as much as the Sandinistas.

A. MAPBOARD TERRAIN: Only mapboard panel 4 is used.



All buildings are of wood plank construction except building I (brick) and buildings N and F (both concrete). Treat hedges as “1” height free-standing stone walls. No building is greater than two stories in height except buildings L and O. Streets are paved.

B. SPECIAL RULES: Game length is 5 Turns. ARDE units may exit off the south mapboard edge. Sandinista units may exit off any edge hex north of the mapboard fold exclusive. No unit may exit by way of a building hex.

C. OPPOSING FORCES:

a. Sandinista Popular Militia (Defenders): Set up first in any building except I, J, K, L or M. (399-310-89 points).

1st Sandinista Militia Squad: 3/2; 1C, 1S; 1×MMG4, 1×MPL19, 6×RFL1, 1×PST3.

2nd Sandinista Militia Squad: 3/2; 1S; 1×LMG20, 1×MPL19, 6×RFL21.

3rd Sandinista Militia Squad (-): 3/2; 1S; 3×RFL1, 3×RFL21; 1×BPD, 1×SCP.

Extra Equipment: 3×BNC, 1×SCP, 50×HGN3, 10×MPL19AMO; 4×SFX.

b. ARDE (Attackers): Set up second in buildings I, J, K and/or L. (480-438-42 points).

1st ARDE Guerrilla Squad (+): 3/3; 1C, 1S; 1×GLR2, 1×LMG4, 9×RFL5; 1×BPD.

2nd ARDE Guerrilla Squad: 3/2; 1S; 5×RFL1, 5×RFL5; 1×BPD.

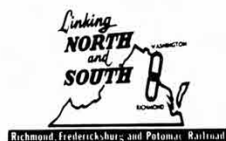
Extra Equipment: 1×BNC, 30×HGN3 and/or HGN5, 5×GLR2AMO, 2×LPL3, 2×PST2 (for LMG and GLR).

D. VICTORY CONDITIONS: The ARDE player wins by controlling a total of seven buildings, which may include those in which he set up, by the end of Turn 5. The Sandinista player wins by avoiding ARDE victory conditions, or if both ARDE squads are panicked at the end of Turn 5.



This is the second in Mr. Werbaneth's studies of revolution in Central America (the first appeared in Vol. 22, No. 6)—a study to which he has devoted much of his adult life. However, before the readers are tempted to dismiss him as another narrow specialist in our hobby, it is recommended that they read his two other fine articles in this issue.





MY FAVORITE LINES

The Railroads of RAIL BARON

By Matt Ellis



RAIL BARON is a fast-paced game of strategy for three to six players, which has the unique feature of being able to be completed in an afternoon. Each player assumes the role of an empire builder from the heyday of American railroading, and is in competition with his rivals to assemble from the 28 railroads available for purchase a system that will make victory possible. Although the luck of the dice and personal interactions among the players can have a decisive effect on the outcome of the game, more often than not it is the player who has acquired the best rail net who will win. The individual railroads are the raw material from which winning—and losing—strategies will be constructed, and any discussion of *RAIL BARON* must have at its heart an evaluation of their strengths and weaknesses.

NORTHEASTERN LINES

The **Pennsylvania** is quite possibly the most valuable railroad on the board, and is certainly the most valuable within reach as an initial purchase. It provides direct access to 75% of the Northeast and 74% of the North Central, two regions which between them account for over a third of all destinations. The access that it provides gives its owner the security to select the Northeast when given a choice of regions—a great advantage which no other railroad confers. This is an important advantage, not only because the Northeast offers the highest payoffs for trips that begin west of the Rockies, but also because it is the region most likely to be called for by the destination table. A player who chooses the Northeast as a destination region will have one chance in five of having a choice again on the next trip. In addition to all this, the PA is the most-used line into New York, despite the well-founded consensus among those who do not own it that it should not receive the trade. The advantages that it offers are so great that the PA is the one railroad which should be bought whenever it is available, and the one most worth taking chances to acquire.

The **New York Central** is a poor second to the PA among the Northeast/North Central lines, but is nonetheless one of the five most valuable railroads in the game. It delivers access to 82% of the North Central region, more than any other railroad and more than enough to give its owner the freedom to go there when given a choice. But it gives access to only 33% of the Northeast (although this does include a virtual monopoly on the 6% that is Albany). Possession of the NYC will make a trip to Boston or to Portland less daunting than it otherwise would be. The NYC is the best initial purchase if the PA is not available.

The poor man's PA, the **Baltimore & Ohio** provides access to 47% of the Northeast and to 46% of the North Central, enough to be useful but not enough to inspire confidence. It benefits from serving many of the same destinations as the PA (since sane players shut out of a city will use the B&O instead whenever the choice is forced upon them). The B&O allows the closest approach to New York and points north of any line that does not serve that city. It is the best initial purchase if the PA and NYC are not available.

In a three-player game, the **Chesapeake & Ohio** is a sort of rich man's N&W, valued primarily for the connections it offers to the SAL and the ACL and for the access it provides to certain cities. The addition of a fourth player transforms it into the pauper's NYC, bearing the same relationship to that line that the B&O bears to the PA. Although the

C&O provides access to a respectable 56% of the North Central, the 19% access it provides in the Northeast is too small an amount to inspire anything but fear. Despite its limitations as a Northeastern line, the C&O does offer a player deprived of a better one as close an approach as possible to the cities in the region. For such an unfortunate it is a necessary purchase—and one that will allow him to stand aloof from the mad scramble for the RF&P.

Although it can be a real moneymaker for whoever has it, the real attraction of the **New York, New Haven & Hartford** is for the owners of the PA and the NYC. In combination with the PA, it provides direct access to 89% of the Northeast and a close approach to the remainder. With the NYC it delivers access to 47% of that region, as well as guaranteed revenues on trips to 25% of it. These advantages are so great that players who are wary of the owners of the PA and NYC will not allow the NYNH&H to fall into the hands of either.

With a monopoly on the 6% of the Northeast that is Portland, the **Boston & Maine** is another potential moneymaker, and an added attraction for the owner of the NYC. In combination with that railroad, the B&M provides access to 53% of the Northeast and a monopoly over 11% of it. While it is not as attractive to him as the NYNH&H, the B&M is still pretty enough that the other players should not allow him to acquire it.

SOUTHEASTERN LINES

The best of the Southeastern railroads, the **Seaboard Air Line** provides access to 69% of that region and a monopoly on the 14% of it that Miami represents. The access that it delivers will allow its owner the security to select the Southeast when he is given a choice of regions, but only if he has the necessary connecting railroads, which can be difficult to acquire. Routes to and along the SAL are often so convoluted that it makes little sense to choose the Southeast unless no other safe region is available. The SAL is often the first railroad away from the Northeast to be purchased, and its sale usually precipitates a rush among the other players to pick up those Southeastern lines that remain.

The **Atlantic Coast Line** bears the same relationship to the SAL that the B&O bears to the PA. It provides access to 51% of the Southeast—a useful amount—and has the advantage of paralleling and serving many of the same cities as the SAL (and the closest approach to Miami of any but the SAL). Players shut out of destinations served by the SAL will usually perversely attempt to alternate turns on the two railroads to avoid overburdening either of the two players with money. This only benefits the player who holds the ACL whenever anyone must travel to Miami. As with the SAL, it can be difficult to acquire railroads to connect with the ACL.

The **Louisville and Nashville** provides access to 50% of the South Central, more than any other railroad, and is the only railroad to have a monopoly in that region (the 10% of it that is Nashville). Despite these credentials, the relative inaccessibility of the Southeast insures that the main contribution of the L&N to the value of any rail net will be as a Southeastern line. The L&N provides access to 42% of the Southeast, third best of any railroad; the connections that it offers to the SAL and the ACL are second to none. These advantages make the L&N attractive to every player. Those deprived of the SAL and the ACL will pursue it to minimize the potentially devastating consequences of a trip

to the Southeast, while owners of those coastal railroads will pursue it to obtain connections to other railroads and to gain enough additional access to secure the Southeast as a region of choice. The L&N is a close second to the SAL among Southeastern lines, especially when its strength in the South Central is taken into account.

The **Southern** and the L&N are similar railroads, and they offer similar advantages as Southeastern acquisitions. The main difference between them is that the SOU offers those advantages in significantly smaller quantities. It provides access to 37.5% of the Southeast and to 31% of the South Central, less than the L&N in each case, and the connections it offers to the SAL are not nearly as profitable. In addition, the SOU fails to connect with the NYC at all. Despite these relative shortcomings, the SOU is, like the L&N, a much sought after railline, and for all the same reasons. The only player which is not likely to pursue its ownership is the owner of the L&N. Although the SOU is inferior to the L&N as a Southeastern line, it does offer one advantage that the L&N does not—access to Washington D.C. A player shut out of the Northeast will not regard the SOU as inferior to the L&N, whatever its limitations in the Southeast.

Although the monopoly it has on the 10% of the Southeast that is Norfolk makes the **Norfolk & Western** a worthwhile addition to any rail system, its greatest value lies in the connections it offers between railroads. The N&W is the only minor railroad to offer connections to all of the major Northeastern and Southeastern lines, an advantage that makes it particularly attractive to the owners of the SAL, the ACL and the NYC. It is equally attractive to players deprived of a Northeastern line for the route that it offers into the North Central allows as close an approach as possible to many of the destinations served by those railroads. The N&W is often purchased ahead of any of the Central lines—especially if someone must travel to Norfolk early in the game.

The only player for whom the **Richmond, Fredericksburg & Potomac** is likely to have any attraction are the holders of the SAL and the ACL. If one of them also holds the PA or the B&O, he will value the RF&P for the ideal connections that it offers between his Southeastern and Northeastern lines. If one of them is shut out of the Northeast, he will value the RF&P for the access that it provides to Washington and for the close approach that it offers to other destinations in the region. But the appeal of the RF&P is the most limited of any railroad in the game, and it is often the very last railroad to be purchased.

NORTHWESTERN LINES

The **Northern Pacific** provides access to 69% of the Northwest, enough to give its owner a strong incentive to select that region when given a choice. This is a significant advantage, for the Northwest is far from the other regions and payoffs to and from it will usually be gratifyingly large. To best exploit this advantage, however, the owner of the NP must acquire railroads connecting with it at either end, a goal which is always difficult and often impossible to attain. The rewards are worth the effort, though, and worth taking some risks.

The **Great Northern** and the NP are as much alike as any two railroads in the game. Which is the most valuable to a particular player will depend entirely upon his situation. The GN provides

access to 62.5% of the Northwest, which makes it marginally less desirable than the NP to a player seeking access or a safe region to select when he has to make a choice. On the other hand, the GN has connections with the WP, which makes it more desirable than the NP to a player concerned about being shut out of the Southwest. Both lines are difficult to establish connections to, but either will make a significant contribution to any rail system. Others will disagree, but I consider both the GN and NP to be more valuable than the SAL. The purchase of either of them can ignite a rush among the other players to acquire those Northwest lines that remain.

The **Chicago, Milwaukee, St. Paul & Pacific** provides access to only 39% of the Northwest, not nearly enough to give its owner leverage to select that region when a choice is offered. This greatly reduces its value in comparison with the NP and the GN, since a major reason to pursue a Northwestern line is to secure the Northwest as a region of choice. Further reducing its value is an almost total lack of connections west of Minneapolis, with the UP offering the only hope of a speedy trip between the two Western regions. These disadvantages far outweigh the one advantage that the CMSTP&P enjoys over the NP and the GN, an abundance of connections at its eastern end. On a positive note, the acquisition of the UP will give the CMSTP&P owner connections to the Southwest and a Northwestern system that is second to none. Although the CMSTP&P is an inferior Northwestern line, the consequences of being shut out of the region are devastating enough that it is a necessary purchase for a player deprived of a better one.

SOUTHWESTERN LINES

Arguably the most valuable railroad in the game, the **Atchison, Topeka & Santa Fe** provides direct access from Chicago to 76% of the Southwest, including a monopoly on 10% of that region (San Diego), as well as access to 41% of the Plains and 21% of the South Central. The access that it offers

in the Southwest gives its owner the security to select that region when he has a choice, and the direct route that it offers insures that a minimum of time will be lost in transit. These are tremendous advantages, not only because any trips to the Southwest pay very well, but also because the Southwest is, next to the Northeast, the region most likely to be called for on the destination table. A player who chooses the Southwest as his destination has one chance in six of having his choice again on the return trip. Perhaps the only weakness of the AT&SF is that it affords no easy connections to the Northwest.

More valuable than the AT&SF to the player with the right connections, the **Southern Pacific** provides access to 82% of the Southwest, 37.5% of the South central and 24% of the Northwest. Although the owner of the SP is even more secure in selecting the Southwest as his region of choice than is the owner of the AT&SF, without the right connecting railroads his trip there is likely to be a good deal more time consuming. On the other hand, the SP does offer one advantage that the AT&SF does not—connections to the NP and the GN. Which Western line is the more valuable railroad will depend primarily on which connecting railroads the owner is able to acquire.

The **Union Pacific** is the only railroad in the game to have monopolies in two different regions (8% of the Southwest, Las Vegas, and 6% of the Northwest, Pocatello). Even with this advantage, it is a distant third among the three major Western lines, providing access to only 32% of the Southwest, to 49% of the Northwest, and to 51% of the Plains. The greatest weakness of the UP is its failure to provide adequate access in either of the two Western regions to secure it as a region of choice. Its greatest strength is the thoroughness with which its combination with any of the three Northwestern lines will correct this weakness. In combination with the NP, the UP provides access to 87.5% of the Northwest and a monopoly on 6% of it. With the GN or the CMSTP&P, it provides access to 81% of the region and the monopoly as well. The acquisition

of the UP will guarantee the owner of any of these three Northwestern lines the superior system in that region—an advantage that will greatly offset the weakness of the UP in the Southwest. Without a Northwestern line to compliment it, the UP is markedly inferior to either the AT&SF or the SP. Even an inferior Western line is far better than no Western line at all, and the UP—despite its limitations—is still one of the five most valuable railroads in the game.

Dollar for dollar the most valuable railroad on the board, the **Western Pacific** gives its owner a great advantage in the competition for routes into the Southwest. In combination with the AT&SF, it provides direct access to 88% of that region, a monopoly on 10% of it, and connections with the GN. With the SP, it delivers access to 82% of the region and a monopoly on 11% of it. With the UP, it offers access to 69% of the region and a monopoly on 8% of it. In short, possession of the WP will guarantee the buyer of the AT&SF or of the SP the superior system in the Southwest, and will give the buyer of the UP a system nearly the equal of the AT&SF or SP alone. It is the extent to which the WP relieves its owner of the pressure to acquire a particular western line, the degree to which it expands his options, that is the real value of the WP. (It goes without saying that a player who cannot acquire any of the three western lines had better have the WP, and connections to it.) The WP is the best initial purchase if the PA, NYC and B&O are all unavailable.

The **Denver & Rio Grande Western** offers so many *potential* advantages that it is almost always purchased early in the game, long before its actual value to the player who buys it is clear. To the owner of the WP, it offers the best connections to his railroad should he be deprived of a major Western line. To the buyer of the SP, it offers a direct route into the Southwest, one that will make his Western line as valuable to him as the AT&SF is to its owner. To a player shut out of the Southwest or the Northwest, it offers as close an approach as possible to

**TABLE 1
PERCENTAGE OF ACCESS, BY REGION**

| | NE | SE | NC | SC | PI | NW | SW |
|----------|---------|-------|-------|-------|-------|-------|-------|
| PA | 75.0% | | 73.6% | 9.7% | | | |
| B&O | 47.2% | | 45.8% | | | | |
| NYC | 33.3% | | 81.9% | | | | |
| C&O | 19.4% | 6.9% | 55.6% | 9.7% | | | |
| SAL | | 69.4% | | 8.3% | | | |
| ACL | | 51.4% | | 8.3% | | | |
| SOU | 11.1% | 37.5% | | 30.6% | | | |
| L&N | | 41.7% | 11.1% | 50.0% | | | |
| CRI&P | | | 22.2% | 23.6% | 72.2% | | 4.2% |
| CB&Q | | | 34.7% | 8.3% | 58.3% | 12.5% | |
| C&NW | | | 33.3% | 29.2% | 12.5% | | |
| SLSF | | | 12.5% | 37.5% | 36.1% | | |
| MP | | | 12.5% | 36.1% | 31.9% | | |
| IC | | | 34.7% | 36.1% | | | |
| GM&O | | 8.3% | 34.7% | | 25.0% | | |
| NP | | | | | 23.6% | 69.4% | |
| GN | | | | | 23.6% | 62.5% | |
| CMSt.P&P | | | 33.3% | | 19.4% | 38.9% | |
| AT&SF | | | 22.2% | 20.8% | 43.1% | 76.4% | |
| SP | | | | 37.5% | | 23.6% | 81.9% |
| UP | | | | | 51.4% | 48.6% | 31.9% |
| B&M | 19.4%* | | | | | | |
| NYNH&H | 13.9%** | | | | | | |
| RF&P | 11.1% | 6.9% | | | | | |
| N&W | | 9.7% | 18.1% | | | | |
| T&P | | | | 36.1% | | | 5.6% |
| D&RGW | | | | | 23.6% | 12.5% | |
| WP | | | | | | 12.5% | 37.5% |

* Excludes Albany
** Excludes New York

**TABLE 2
PERCENTAGE OF MONOPOLY**

| | NE | SE | NC | SC | PI | NW | SW |
|--------|------|-------|----|------|------|------|------|
| NYC*** | 5.6% | | | | | | |
| B&M | 5.6% | | | | | | |
| SAL | | 13.9% | | | | | |
| L&N | | | | 9.7% | | | |
| N&W | | 9.7% | | | | | |
| AT&SF | | | | | | | 9.7% |
| UP | | | | | | 5.6% | 8.3% |
| CRI&P | | | | | 6.9% | | |
| C&NW | | | | | | 6.9% | |

*** Includes Albany

**TABLE 3
CHARACTERISTICS OF REGIONS**

| Region | Accessibility | Probability of Choice | Regional Minimum | Probability Maximum |
|---------------|---------------|-----------------------|------------------|---------------------|
| Northeast | 2.31 | 20.8% | 17.2% | 30.2% |
| North Central | 5.26 | 15.3% | 13.3% | 26.3% |
| Southeast | 2.32 | 12.5% | 11.1% | 24.1% |
| South Central | 3.53 | 12.5% | 11.1% | 24.1% |
| Plains | 4.38 | 11.1% | 10.0% | 23.0% |
| Northwest | 2.93 | 11.1% | 10.0% | 23.0% |
| Southwest | 2.38 | 16.7% | 14.3% | 27.3% |
| Overall | 3.22 | 13.0% | | |

Accessibility—expected number of railroads per destination

Probability of Choice—probability a choice of regions will be offered

Minimum Regional Probability—occurs if region is never region of choice

Maximum Regional Probability—occurs if region is always region of choice

RAIL BARON is a game that lends itself to analysis. Anyone who writes on the subject will be sorely tempted to suggest some sort of theoretically derived rating system that assigns precise values to each of the 28 railroads in order to allow direct comparisons to be made between them. Although I have presented tables from which readers may draw their own conclusions, I have resisted the temptation to offer such a rating system—not because I do not consider it a worthwhile goal, but because I believe it is a goal that cannot be attained through theoretical analysis. Any analysis straightforward enough to be easily understood would necessarily ignore too many important factors to be more than an approximation of reality, while any analysis that took every factor into account would be far too complicated to inspire confidence. No theoretical analysis of a game as complex as *RAIL BARON* can be both comprehensive and comprehensible, an ugly fact that deprives any theoretically derived rating system of its credibility.

An empirically derived rating system would be another matter altogether. The real value of any railroad lies exclusively in the contribution it makes toward the victory of its owner, and one of the best indications of the worth of any railroad must consequently be the frequency with which it is part of winning players' rail systems. If a large enough sampling of winning systems were available for study, it would be a simple matter to derive from it just such frequency values for each of these 28 railroads. The resulting empirically derived rankings would offer as accurate a representation of the actual worths of the railroads as it is possible to obtain. While it could easily take an individual a lifetime to record a large enough sampling to make analysis worthwhile, a cooperative effort among many *RAIL BARON* enthusiasts could produce significant results in a short time. I am proposing here just such an effort, which I will call, for lack of inspiration, Project *RAIL BARON*.

For the sake of simplicity, the project is limited to face-to-face games that are played to completion in a single session, with the winner determined according to the standard victory conditions, no optional or house rules in use, and the same players remaining in the game from beginning to end (except, of course, for any eliminated during play). Players who wish to contribute their results are urged to record the following information upon the completion of every game that meets these criteria:

Date of Game
Location of Game
Number of Players at Beginning
Number of Players Eliminated during Play
Home City of Winning Player
Railroads owned by Winning Player at End of Game
Other Holdings of Winning Player (Express or Superchief)

Please forward this information to me, Mr. Matt Ellis, Project *RAIL BARON* (5403 Biddison Avenue, Baltimore MD 21206). Although the information will fit on a postcard, any contributor who includes a self-addressed, stamped envelope will receive by return mail a summary of my findings to date. Project *RAIL BARON* is an unprecedented opportunity for those interested in the game to make a significant contribution to the body of knowledge surrounding it, and I hope that other players will be as enthusiastic towards it as I am.

most of the destinations in those areas. The D&RGW will have little value to any player, however, unless it can be combined with the CRI&P, the CB&Q or the MP. In most games, it will act as a western extension of one of these Central lines.

CENTRAL LINES

The best of the Central lines, the **Chicago, Rock Island & Pacific** provides access to 72% of the Plains, a monopoly on 7% of that region, useful access in the South Central, and connections to Chicago and Tucumcari. The access delivered in the Plains gives the owner of the CRI&P the freedom to select that region when given a choice—although this is of dubious benefit since, if he has no better choice available, payoffs to and from the Plains are uniformly poor. The real value of the CRI&P lies in the access it provides—not to cities, but to other railroads. The only major railroads to which the CRI&P does not offer connections are the SAL and ACL; possession of it practically guarantees a well-connected system. Although the advantages that it offers makes the CRI&P attractive to every player, its greatest attraction is for the owner of the SP. The purchase of the CRI&P will give him a route into the Southwest that is nearly as direct as that offered by the AT&SF, and will make the SP even more valuable to him than the AT&SF to its owner. The CRI&P is seldom the first of the Central lines to be purchased, but its sale initiates a scramble among the other players for those connecting railroads that remain.

The **Chicago, Burlington and Quincy** provides access to 58% of the Plains and to 12.5% of the Northwest, and offers connections to Chicago, St. Louis and Fort Worth. Despite its strength in the Plains, the relative inaccessibility of the Northwest insures that the main focus of the CB&Q will be on that region. It provides the deepest penetration into the Northwest of any of the Central lines, and its acquisition is the best way for a player shut out of the region to minimize the painful consequences of a trip there. The greatest attraction of the CB&Q, however, is for the owner of the NP. In combination with that railroad, the CB&Q provides access to 75% of the Northwest, a monopoly on 7% of it, and badly needed connections to Chicago. The acquisition of the CB&Q is the one sure way for the owner of the NP to make the most of his rail line that is not available to the owner of the GN. The greatest weakness of the CB&Q, in comparison with the CRI&P, is its failure to offer connections to either the GN or the SP.

The **Chicago & NorthWestern** provides access to 33% of the North Central, to 29% of the Plains, to 12.5% of the Northwest, and is the only Central line to have a monopoly in one of the Western regions (the 7% of the Northwest that is Rapid City). The greatest attraction of the C&NW is for the owners of the NP and GN, and it is equally valuable to both. In combination with either, the C&NW provides access to an additional 12.5% of the Northwest, a monopoly on 7% of it, and connections to Chicago. The acquisition of the C&NW will guarantee the owner of the NP the superior system in Northwest, or will give the GN-owner a Northwestern system every bit the equal of the NP-CB&Q combination. The advantage that it offers owners of the two best Northwestern lines are impressive enough that the C&NW is almost always the first of the Central lines to be bought.

The **Missouri Pacific** provides access to 36% of the South Central and to 32% of the Plains. Although the access it delivers can make the MP a worthwhile addition to any rail system (along with connections to St. Louis), its greatest benefit is for the owner of the SP. The MP offers connections to the SP that are second only to those offered by the CRI&P, and its purchase will give the SP-owner

a Western line that is nearly as valuable to him as the AT&SF is to its owner. The appeal of the MP among the other players is limited enough that it is usually among the last of the Central lines acquired.

The **St. Louis-San Francisco** railline provides access to some 37.5% of the South Central and to 36% of the Plains, with connections to St. Louis. Although the SLSF, like the MP, can be a nice addition to any system, its great attraction is for players seeking routes into the Southeast. The SLSF offers connections to the SAL and ACL that are only slightly inferior to those offered by the SOU, an advantage that makes it attractive both to players shut out of the Southeast and to owners of those coastal roads. The SLSF is a railroad of broad appeal; it is almost always purchased ahead of the MP.

The **Gulf, Mobile and Ohio** is unique among Central lines in offering no profitable access in any of the three Central regions. It provides access to just four cities, only one of which is not served by at least six other railroads. What value the GM&O has lies almost exclusively in the connections that it offers to other railroads. To a player seeking routes into the Southeast, that value is substantial, for the GM&O offers connections to the SAL and the ACL that are next only to those offered by the L&N. The connections that it offers to the SAL, in particular, are far better than those offered by the SLSF. Despite this advantage, the failure of the GM&O to have worthwhile access in the Central regions makes it less valuable than the SLSF to every player but the owner of the SAL. In a game in which no one is shut out of the Southeast, the GM&O is usually the last of the Central lines to be purchased; but in any other game, it is often one of the first.

The **Illinois Central** has access to 36% of the South Central and offers connections to Chicago and St. Louis. In most games that is the full extent of its value. The IC does offer connections to the SP, but if the owner of that railroad must rely on them he will waste so much time on trips to the Southwest that the SP will be much less valuable to him than the AT&SF is to its owner. In addition, the IC fails to connect with the UP at all. The few advantages that it offers are so modest that in any game in which connections to the Southeast are dear, the IC is usually the last railroad purchased.

The **Texas & Pacific** provides access to 36% of the South Central and to 6% of the Southwest. Although it complements well every railroad that connects to it, the T&P is particularly attractive to the owners of the L&N and the MP. In combination with the L&N, the T&P provides access to 74% of the South Central, while with the MP it provides access to 72% of the region. The acquisition of the T&P will give the owner of either enough additional trackage in the South Central to secure it as region of choice—a modest advantage, to be sure, but an advantage nonetheless. In addition, for a player recently shut out of the Southwest, the T&P is often the only railroad still available that offers anything like a close approach to the destinations in that region.

CONCLUSION

These are the railroads of *RAIL BARON*. Some offer great advantages to whoever holds them and will be pursued by every player, while others offer specific advantages but limited advantages to certain players and will be of little interest to anyone else in the game. Despite this wide variation in the appeal of the individual railroads, under the right circumstances the outcome of a game can hinge upon the ownership of any of them. Each railroad has the potential to be, in the only sense that really matters, the most valuable railroad in the game—the one whose acquisition makes victory possible for the winning player.



THE LONG HAUL

Axis Strategy for THE RUSSIAN CAMPAIGN

By James Werbaneth

The Second World War on the Eastern Front was the most massive, destructive and, for those that have studied it, fascinating military campaign in the history of the modern world. The scope of Nazi Germany's epic death struggle with the Soviet Union is vividly simulated in the classic *THE RUSSIAN CAMPAIGN*.

When playing *THE RUSSIAN CAMPAIGN* from May/June 1941 to May/June 1945 (the "Fall of Berlin" scenario), the Axis player faces a strategic challenge similar to that faced by his German counterparts in the actual campaign. When Barbarossa was launched on June 22, 1941, the Germans had only a vague idea of the military and political conditions that could lead to the defeat of the USSR. Their plans called for the forces of Germany and its allies to drive deep into the Soviet Union, capture the vital cities of Moscow, Leningrad and Kiev, and continue pressing toward the Urals on a broad front until any lingering Soviet resistance collapsed. Despite the phenomenal victories enjoyed by the Axis in 1941, the Soviets proved more than equal to the challenge. The German invasion plan was conceived out of strategic uncertainty, and sired the enduring dismemberment of the defeated Germany.

Like the officers of the OKH, the Axis player in *THE RUSSIAN CAMPAIGN* begins with an uncertain knowledge of conditions that will result in victory on the Eastern Front. He knows that he must hold Berlin at the end of the May/June 1945 game turn, but he does not necessarily know how to accomplish this. Should he conduct a methodical advance into the USSR, committing his forces to a defense in depth west of the Soviet heartland for the time that his opponent develops a significant counterattack capability? Or, should he maintain aggressive operations for as long as possible, retaining control of the initiative and thus diminishing the Soviet player's ability to strike back? Should he try to seize Soviet cities—or break the back of the Red Army? The Axis player must make several critical strategic decisions, in which miscalculation can well lead to defeat.

As are all military conflicts, that of the *THE RUSSIAN CAMPAIGN* is decided by power. Strategy is the marshalling and exploitation of one's own power while eroding that of the opponent. When the Axis player receives reinforcements or takes control of an oilfield, he enhances his own military power. When he forces the removal of a Soviet combat or worker unit, he diminishes Soviet military power.

To win *THE RUSSIAN CAMPAIGN*, the Axis player must gear his strategy around power in all of its applicable forms. If he strives to occupy as much territory or seize as many cities as possible while neglecting to inflict sufficient Soviet casualties, he will likely face devastating early counterattacks. But, if he destroys large numbers of military units yet does not push deep enough into the USSR, the Soviet player will be able to revitalize his forces astonishingly quickly and launch his counterattacks disturbingly close to the Rumanian oilfield and Berlin itself. Such Axis difficulties are the result of that player's inability to plan and act in terms of a comprehensive definition of military power.

In *THE RUSSIAN CAMPAIGN*, military power is derived from the quantity and quality of military units, replacement capability, and the control of territory and cities. Military power consists of all three elements, not any single one. The Axis player who

stresses one component while largely disregarding the other two does so at the grave peril of his cause.

The quantity and strength of combat units comprise the most obvious element of military power. It is also the most fluid. In *THE RUSSIAN CAMPAIGN*, an AE, EX or DE result on either side in combat involving a total of half-a-dozen units on both sides can result in an immediate and dramatic change in the relative power of the players. In such a case, the sudden absence of friendly units along an appreciable stretch of front will often enable the opponent to destroy even more units, take cities and territory, and thus increase the imbalance of power created by the original combat.

Reinforcement capability is neither as obvious, set, nor as fluid as the first element of military power. For the Axis player, power derived from this source is modest at best. He receives such a limited quantity of reinforcements that he must preserve the bulk of his originally deployed forces if he hopes to win. In contrast, the Soviet player could conceivably lose his entire order of battle in 1941 and still roll into Berlin by the end of the game, due to his ability to receive massive reinforcements and replacements. The Axis player's relative weakness in this area is increased by his nearly insignificant level of replacements, received once a year. This capability can be augmented only by the seizure of the two Caucasian oilfields, a difficult and hazardous task.

Though the Soviet player's replacement capability is far larger than that of his opponent, it is also more vulnerable, a characteristic that the Axis player must bear in mind. The Soviet player relies upon worker units, many of which are initially deployed in cities within reach of the German panzerkorps. It is possible that the Soviet player's ability to recoup his losses will be hamstrung by the loss of worker units. Unless the Axis player accomplishes this, the Soviet replacement capability, and hence the Soviet order of battle, cannot but help but increase sharply in 1941 and 1942.

Territory is both a product and an element of military power in *THE RUSSIAN CAMPAIGN*. Its role as an element of power has two aspects. First, territory captured by a player facilitates both offensive and defensive operations. For example, it is much more probable that an Axis drive on Moscow launched from a line two hexes to the west will succeed than one begun in the neighborhood of Minsk. Similarly, by capturing Soviet territory the Axis player can place space between the Soviet armies and Berlin, space that can be traded for time when his opponent begins to push westward.

The second aspect of territory as a source of power is the facilitation of rail movement and supply. By capturing the hexes containing railroads, the player increases the number of supply sources available to him and allows reinforcements and replacements arriving on his home map edge to travel quickly to the front lines. Conversely, the control of railroads by a player denies their benefits to his opponent, thereby augmenting the power of one player and diminishing the power of the other simultaneously. This is particularly important and apparent if the Axis player is able to capture Moscow and hexes X8 and Y8, effectively eliminating the Soviet player's ability to shift units by rail between the northern and southern halves of the mapboard. An opponent's offensive can be delayed for several turns by the judicious seizure of important rail junctions.

An even more important type of territory is that of major and minor cities. A city is a supply source, regardless of any rail links with a map edge. A detached pocket of resistance formed around a city will remain in supply and hence will not disappear by itself, but must be reduced by combat. A major city has the same characteristics, with the added feature of substantially enhancing defensive efforts. In *THE RUSSIAN CAMPAIGN*, a major city fulfills the role of fortresses, and can be effective anchors in any defensive line. Thus, cities can be critical factors in the calculation of military power.

AXIS STRATEGIC OPTIONS

The Axis player can win the longest scenario of *THE RUSSIAN CAMPAIGN* in either of two ways. In the first, an option reminiscent of the German plan for *Barbarossa*, the Axis player destroys his opponent's military power quickly and decisively so that the Soviet player cannot prevent the capture of the bulk of the territory in the USSR including the most important cities and rail junctions. If the Soviet player cannot stop the destruction of his combat and worker units and the occupation of his territory, then he will find it impossible to consider taking Berlin at any point in the game. To win by this route, the Axis player must break the military power of the USSR before the first snow of the winter of 1942-43 at the very latest.

The second strategic option is less ambitious and forces the player to be competitive from start to finish. The Axis player does not gamble on an early victory, but tries to hold onto Berlin at the end of the game. He does not try to break his opponent, but to outlast him. Such a victory might not be perceived as a real triumph in terms of the actual "Great Patriotic War," particularly if the game ends with overwhelming Soviet forces west of Vistula. Nonetheless, such would be sufficient to gain the Axis player victory in *THE RUSSIAN CAMPAIGN*.

Unlike his real-life German counterparts, the Axis player who understands the nature of power in *THE RUSSIAN CAMPAIGN* should also know the conditions under which the Soviet Union will be defeated. Such a victory requires both the wholesale destruction of Soviet units and the capture of a large number of cities, some of them very difficult to seize.

To decide the game early in his favor, the Axis player must capture all of the important cities in the Soviet Union. These are Moscow, Leningrad, Kiev, Kharkov, Stalino and Stalingrad. Possession of these obvious objectives will deprive the Soviet player of at least eleven points of replacements per turn, dismember the Soviet rail network, and facilitate the easy and rapid rail transfer of Axis forces, thus insuring that the initiative—and hence the advantage—will remain in Axis hands.

Seizure of these six cities will be of much less value, however, if the forces that take them are unable to hold them against Soviet counterattacks or flanking maneuvers. Therefore, the Axis player must maintain a broad, strong front with few gaps or weak spots exploitable by Soviet countermoves.

In addition, large numbers of Soviet combat units must be destroyed. The best remedy against a strong defense or counterattack is to make sure that one's opponent lacks sufficient forces to mount such resistance. The Soviet player's replacement capability is one of his most valuable assets, so Soviet losses must be monumental for this gambit to succeed. Furthermore, Axis losses must be kept to

an absolute minimum. As impressive as were the German victories of the summer and autumn of 1941, they would be inadequate to win *THE RUSSIAN CAMPAIGN* through a rapid decision.

If these conditions are met, then the Axis player has won. The Soviet player will have little ability to prevent his opponent from going wherever and doing whatever he wants to in the USSR, as his military power will be reduced to a terminal state. The game may continue into 1943, but it will be an exercise in futility for the Soviet player.

But this strategy risks a stunning Soviet victory as well as a quick and dramatic Soviet defeat. The Axis player may push too far east too quickly with his critical and almost irreplaceable panzerkorps, then see them isolated from the main forces of "leg infantry" and eliminated in detail. Furthermore, one can seldom predict when the Red Army will perform like the commissar-ridden, purge-depleted, multi-national near mob that it was in 1941, or when Soviet counters will triumph in crucial combats early in the game. The first strategic option relies much more on fate than does the second alternative.

As is the case should he choose to aim for a quick victory, the Axis player has to be both lucky and good to win by way of a protracted strategy. But, unlike the first alternative, the second does not demand that he be perfect. Early Axis setbacks may be inconvenient, but seldom will they be so stunning as to doom his effort from the start. The second strategy is more tolerant of mistakes and isolated ill luck. After all, it does not matter whether the Axis player's forces end the game pushed out of Breslau or firmly emplaced on the outskirts of Gorki, just as long as there are no Soviet units in Berlin at the end of May/June 1945.

But the Axis player can by no means abandon the initiative early in the game in order to assume a defensive posture. Such a decision will invariably allow the Soviet player to wear down the Axis line through a war of attrition, smashing the patiently constructed defenses as early as 1942. Even if the Axis player is able to hang onto his position until the next spring, he will not be able to replace more than a fraction of the units squandered during the previous year. Defeat will be unavoidable.

The Axis player must drive aggressively into the Soviet heartland, diminishing Soviet power by destroying combat units, eliminating workers, and seizing cities, railways, and territory. He must minimize his opponent's accumulation of military power and keep his forces as far from Berlin as possible, preventing as much of his order of battle as he can. The chief difference between the first and second strategic option is that in the second there is a limit to the Axis player's aggressiveness.

In his drive to the Soviet Union, the Axis player has to capture every city behind his main line of units. A city serving as the focus of a pocket of resistance may be bypassed, but only temporarily. As supplied enemy forces behind one's lines may sortie and become a serious source of distress, such pockets must be reduced and the cities supplying them captured.

Furthermore, there are some cities that the Axis player must regard as vital to his cause, due to their status as rail junctions. Minor cities such as Vitebsk, Smolensk and Kursk are more important to the Axis cause than some major cities for this reason. It is quite possible that possession of the major cities of Rostov and Stalingrad will be necessary for the Axis player to conduct offensive operations against the Caucasian oilfields.

The Soviet player is always dealt a sharp blow when a city containing a worker unit falls to Axis forces. He will feel the loss of the city immediately, and will feel the loss of the worker unit each turn thereafter in which he cannot bring all of the counters in his replacement pool onto the map. Indeed, some cities are important only for the worker units in their hexes. The best example of

this is Leningrad. Situated in the corner of the Soviet Baltic coast, surrounded by swamps and water, Leningrad is fairly easily isolated from the rest of the USSR by German and Finnish units upon the collapse of Soviet resistance elsewhere along the Baltic. Due to its geographic isolation, it is the only Soviet city that can be permanently surrounded by the Axis player to his own benefit. But Leningrad's worker unit can be a powerful inducement to a direct Axis attack on the city. Without this one unit, Leningrad would be an easily defended piece of marginally valuable real estate far from the primary areas of decision in central Russia and the Ukraine. But the worker unit frequently makes it an attractive target for a difficult and often costly attack.

As Axis units move eastward and capture Soviet cities, by necessity large parcels of Soviet territory fall under the Axis player's control. Some might see these non-city hexes as empty spaces of little or no intrinsic value to the Axis player. But this is not the case in *THE RUSSIAN CAMPAIGN*. Though it is inadvisable to trade large (or even small) numbers of Axis counters to maintain a relatively small salient deep inside the Soviet Union, the Axis player must remember the value of captured territory in terms of military power.

But massive territorial seizures are worthless, even dangerous, without wholesale destruction of the Soviet order of battle. In overextending his lines against a Soviet player with an immediate or readily acquirable counterattack capability, the Axis player leaves his forces open to encirclement and destruction, with ensuing losses of territory, cities and even more Axis units. Such was the history of the Stalingrad Campaign, in which the Germans sent most of their most powerful units toward the Caucasian oilfields while holding their left flank with weak Rumanian, Italian and Hungarian units. The Axis player in *THE RUSSIAN CAMPAIGN* should know better and avoid the sort of epic defeat that befell his historical counterparts.

One of the best methods of preventing the penetration of one's lines is to eliminate the opponent's means of resistance through the destruction of large numbers of counters. For example, the holding of the line north of Stalingrad by weak allied units would not have been fatal to the German cause had the Red Army been savaged in 1942 that effective defense, let alone massive counterattack, would have been difficult.

The Axis player must destroy both weak and strong Soviet counter units. Strong units are costlier to replace than weaker ones, but still occupy only one hex, with a Zone of Control extending into the six adjacent hexes. The prime advantage of a strong replacement unit to the Soviet player is to strengthen a defensive line at one particular point, or augment a counterattack. The weaker units, with combat strength of "2" and "3", are less expensive to replace and are necessary to hold stretches of line and form the bulk of counterattacking forces.

When deploying units from his replacement pool, the Soviet player must choose one of three types of defenses. In the first, he draws strong units and places them in short lines or small pockets that are relatively easily flanked but difficult to assault directly. In the second, he deploys long lines of weaker units that are more difficult to flank but less likely to hold against a determined frontal attack.

The third variety of defense is a hybrid of the first two. The Soviet player aligns weak and moderately strong counters in a broad front, with clusters of strong tank and Guards armies positioned in sectors of probable Axis attack, or held in reserve for Soviet counterattacks. This is the optimum Soviet defense, and the one that historically led to the defeat of Germany on the Eastern Front.

The Axis player's task in *THE RUSSIAN CAMPAIGN* is to destroy so many Soviet counters that the third defense is impossible, and the first two are ineffective. He must overload the enemy replacement

capability in 1941 and 1942 so that the Soviet player lacks the weak units to construct a broad front and the strong formations to form sufficiently strong pockets and short lines. The Axis player has to dictate his opponent's strategy in order to win.

THE OFFENSIVE: 1941-1942

The years of 1941 and 1942 are those of decision in *THE RUSSIAN CAMPAIGN*. If the Axis player chooses the strategy of quick victory, Soviet military power must be broken by the first snow of late 1942. If he opts for the strategy of endurance, then he must have done sufficient damage to Soviet power (while losing a minimum of his own units) to weather the inevitable Soviet counteroffensives of 1942 through 1945. To a great extent, the player that holds Berlin in May/June 1945 will be decided by the end of 1942.

During the offensive years of 1941 and 1942, objectives of Army Group North and the Finns (along with any units detached from Army Group Centre) will be the least ambitious for the three Axis groups. The only major city that these units must capture is Riga, a crucial rail center. Leningrad must be isolated from the rest of the Soviet Union. Should a player aim to defeat the USSR quickly, it must be captured instead. But if the Axis player wishes to win a protracted game, Leningrad should be attacked only if an opportunity to capture it with minimum losses presents itself.

Commensurate with Leningrad's modest importance to the Axis cause are that player's territorial objectives. He should move a few counters of his northern forces into the swamps south of Leningrad. If he desires an early decision, most of his counters in Army Group North and the Finnish army should be sent north through Leningrad to join the Northern Finland reinforcements on a push north of Lakes Ladoga and Onega toward Archangel. The player who decides to surround Leningrad must be content to settle the Finnish army into defensive positions north of the city and establish a defensive line in the swamps from Leningrad to the northern shore of Lake Ilmun. A handful of weak units can be held back to cope with the Soviet counterblows and partisans.

The objectives of Army Group Centre will be much more ambitious. To win via the quick victory strategy, the Axis player must seize Moscow. This is an absolute prerequisite to defeating the USSR before 1943. If he opts for the second strategy, his chances of winning are greatly enhanced if he can take and hold the Soviet capital. In either case, the Axis player must remember that if the Soviet player is to triumph, he must hold Moscow for himself. Thus, though the rules do not state that possession of Moscow is a prerequisite of victory for either player, this is most frequently the case.

Moscow is a critical asset to Soviet military power as well. It is easily the most important rail center in the Soviet Union, and truly "all roads lead to Moscow" in *THE RUSSIAN CAMPAIGN*. It is also the most important site for entering Soviet reinforcements and replacements. Substantial reinforcements enter at Moscow in late 1941, and its worker unit's replacement value of three makes it the most valuable to the Soviet player. By taking Moscow, the Axis player strikes a severe blow at his opponent's ability to receive and move reinforcements and replacements.

But capturing Moscow is never easy. Its role as the site of incoming units insures that substantial Soviet forces will be waiting to defend the city when the Axis player's own units are approaching it, most probably in Sept/Oct or Nov/Dec 1941. Army Group Centre can virtually annihilate the forces deployed in the Western Military District, only to find a stronger concentration of Soviet units standing before Moscow. Terrain further facilitates the defense of Moscow. To reach the city, the units of

Army Group Centre have to advance through two large forests east of the Pripet Marshes, an area that is also increasingly laced with rivers the nearer the attackers come to Moscow. When they do reach their objective, they find a major city made difficult to flank by defensive river lines.

Moscow is the only city in the Soviet Union for which the Axis player should be prepared to trade important units. If attempting to win a protracted struggle, he can win without Moscow in his possession . . . though this would be more difficult than winning with it under his control. But he must not sacrifice so much power taking Moscow that he cannot hold it or maintain the integrity of his front. To do so would be to learn the true meaning of a Pyrrhic victory.

There are a number of minor city rail junctions in Army Group Centre's path that the Axis player should capture. It is absolutely necessary that wherever the Axis advance ends, Vitebsk, Smolensk and Bryansk remain under Axis control. It is not imperative but nonetheless highly desirable to take Kalinin and Tula as well, though holding these cities would be difficult if Moscow remains in Soviet hands.

The territorial objectives of Army Group Centre lie deep in the USSR. Ideally, the Axis player should construct a defensive line from the southern edge of the mountains adjacent to Lake Ilmun to a point near the headwaters of the Don (whether he occupies Moscow or not) at the end of 1942. But a less successful drive into the USSR will seldom doom the Axis cause by itself.

The forces of Army Group South and the units deployed in Rumania have an assignment nearly as critical as that of Army Group Centre. At the beginning of the game, these forces are confronted with a fairly strong Soviet order of battle deployed in terrain favorable to the defense. But once the Axis player has overcome Soviet resistance near the start line, he can normally move deep into the southern USSR, driving as far as the Donets River in 1941.

Lwow is the first city objective of Army Group South, and is one of the more difficult minor cities to take. But because of its status as a critical rail center, as well as its position astride one of the few clear terrain routes into the Ukraine, the Axis player needs to capture it in the first two game turns.

No matter which strategy is chosen by the Axis player, his southern group forces must make something of a headlong dash across the Ukraine in 1941—taking cities, acquiring territory, and destroying Soviet units in tactical mismatches and battles of encirclement. His pace must be nearly frantic, with the safety of his rear and flanks guarded by his own momentum, continuing threats to Soviet cities and forces, and the destruction of Soviet combat units.

The only place at which he should consider slowing his advance is Kiev. Kiev is second only to Moscow in importance in *THE RUSSIAN CAMPAIGN*. It is the second most important rail center in the USSR, and has a worker unit with a replacement value of two. Its defense is aided by nearby swamps and the Dnepr River. But if the Axis player is to win, Kiev must fall to his forces in the summer of 1941.

He can accomplish this most easily by wheeling northward across the Dnepr, sweeping into and behind the southeast corner of the Pripet Marshes. In this manner the Axis player can bring to bear the greatest strength available to Army Group South against Kiev, as well as secure a bridgehead across the Dnepr. This maneuver can be assisted by the diversion of one of two panzerkorps from Army Group Centre to the Ukraine, formations that would circle behind the Pripet Marches and strike the Soviet forces from their rear. This is roughly the historical decision made in 1941, when Heinz Guderian's panzer divisions drove south to engage in the battle of encirclement around Kiev. The Axis

player should not discount such a commitment of Army Group Centre mobile formations just because Guderian's participation in the capture of Kiev has remained controversial for 45 years.

The Ukraine contains the most open terrain outside of the Caucasus region, and is therefore suited to the battles of encirclement in which the Axis side excels early in the game. Following the fall of Kiev, the Axis player should be able to sweep south and west toward the Donets, renewing his frantic race for the Soviet heartland. He should view Kharkov and Stalino as his next city objectives. If the Axis player has executed his strategy well, the Soviet player will lack the units to mount a determined defense west of the Donets.

The Black Sea ports of Odessa and Sevastopol pose special problems for the Axis player in the south. These cities may be bypassed in some games, and many a player will feel safe if he leaves weak Rumanian, Italian and Hungarian units to contain their garrisons. But this is often a very serious mistake. The Axis screening forces will be comprised of units best utilized to maintain the offensive momentum or guard against Soviet counterattacks elsewhere in the Ukraine. Furthermore, a player who leaves Odessa and Sevastopol in Soviet hands also concedes a potentially nagging naval and amphibious capability to the Soviet player while abandoning his own.

It is also possible that the unimpeded Soviet naval and amphibious capability on the Black Sea could prove worse than a nuisance for the Axis player. Soviet pockets built around either port differ from inland pockets in that they can be easily reinforced regardless of the current position of the mainline of resistance. An alert Soviet player may exploit an insufficient port by reinforcing it by sea, then attacking the screening forces and advancing inland. The Axis player thus finds a strong, supplied and reinforceable Soviet force advancing into his rear areas. The initiative will fall into Soviet possession in the south, and perhaps throughout the Eastern Front as the German reacts to this threat. Because of this, an Axis player with the choice of diverting a few units to screen Odessa and Sevastopol or expending them to take the Black Sea ports should exercise the second option.

The southern half of the mapboard represents the best opportunity for the Axis player to capture huge parcels of Soviet territory early in the game. By the winter of 1942-43, the Axis front should have reached at least the Donets River, and optimally Voronezh. If the player is aiming for a quick victory, the forces of Army Group South-Rumania and Army Group Centre should have their junction somewhere around the source of the Don. In either strategy, two or more Axis units should be sent to the Crimea to always guard the Kerch Strait against any Soviet moves from the Caucasus unless the Axis player's forces are already firmly established in this part of the USSR.

The years of 1941 and 1942 are years of the strategic offensive for the Axis player. The Soviet player will launch counteroffensives during the first winter of *THE RUSSIAN CAMPAIGN* and although their effects may be serious, they should be temporary reverses of fortune. The Axis player should be able to retake the initiative in the spring of 1942.

Sometimes these offensives actually help the Axis player, their intended victim. A Soviet player who has success counterattacking during snow turns will yield to the temptation to continue applying pressure on his opponent when the snow melts. But in Spring 1942, the Axis player is normally able to preserve enough of his forces to hold against the Soviet attacks, which will nearly always result in the destruction of a larger number of destroyed Soviet units. The Axis player can regard these Soviet losses as a gift, and can exploit the depletion of Soviet military power when he resumes the offensive, in this instance actually a counter-counteroffensive.

Such was the historical situation in 1942. The Soviets were able to drive across the Donets during the winter, tearing out a salient centered around the east shore city of Izyum. The Soviets were flushed with success and elected to launch an offensive in May against Kharkov. But the Germans, already planning for their own offensive against the Izyum salient, held Kharkov and counterattacked from the south while the Soviets' main effort was being launched from the northern half of the bulge. The result was a battle of encirclement in which the Soviet tank and cavalry units, carefully marshalled and concentrated, were lost in large quantities and rendered unavailable to defend against the upcoming drive toward Stalingrad and the Caucasus. Often a Soviet player in *THE RUSSIAN CAMPAIGN* will conduct such a premature offensive and present the Axis player with a similar opportunity.

THE DEFENSIVE: 1943-1945

The strategic situation of *THE RUSSIAN CAMPAIGN* changes radically in 1943. No matter how many Soviet units were destroyed in the previous two years, the Soviet player will have a large and resurgent Red Army at his command. By contrast, the Axis player will have units in his replacement pool that he has no hope of returning to play, and his Stuka capability will pass from miniscule in 1943 to non-existent in 1944 and 1945.

The spring of 1943 is the time when the Axis player who has not gained a quick and decisive victory has to permanently assume a defensive stance. Unless presented with an irresistible opportunity for attack by the Soviet player, he must contain his moves against his opponent to limited counterattacks of Soviet breakthroughs and flanking moves. An Axis player who launches a large offensive of his own in 1943 or thereafter will meet with, as did the Germans at Kursk, an unparalleled defeat at a time in which he can least afford it.

The first priority of the Axis player on defense is to preserve the bulk of his units in a broad front. A properly constructed front will stretch from the Baltic to the Black Sea and will be impossible to flank and penetrable only through difficult, risky and costly frontal assault. By defending along a broad front, the Axis player makes the task of his opponent as difficult as possible. The Axis player has insufficient power to beat his opponent in a war of attrition. A player who engages in such a struggle with his Soviet opponent is virtually conceding the game. Nor does his limited order of battle and replacement capability allow him to contest every hex of the USSR under his control.

As can the Soviet player when defending Moscow or Kiev, the Axis player can use the terrain of the Soviet Union to his advantage from 1943 until May/June 1945. The greatest geographical assets enjoyed by the Axis player are the rivers that flow from north to south (and vice versa) in the USSR. As major cities are functional fortresses, rivers are natural defensive lines. Because of the defensive attributes of rivers in *THE RUSSIAN CAMPAIGN*, the possession of hexes adjacent to them contributes to the role of territory as a source of military power.

An Axis line struck by overwhelming Soviet forces on open terrain should be immediately withdrawn westward behind the nearest river, even if the Axis player's units are marginally victorious in combats along the line. The Soviet army can regenerate its losses quickly during the last three years of the conflict, so all but the most stunning Soviet defeats will be ephemeral at most. The Axis withdrawal should not be hasty, but must be made before so many units are lost or the line so badly penetrated that any river defense is doomed from the start.

Dear Mr. Martin:

Although I only recently subscribed to *The GENERAL*, as a *SQUAD LEADER* player I have been a reader for some years. I do not, of course, play all the games discussed in *The GENERAL*; *SL* keeps me very busy all by itself. Nonetheless, I have found virtually every issue to be exciting, entertaining, and informative. Volume 23, Number 3 was of particular interest since naval warfare and the Pacific Theater have always held a special interest for me.

Thus, I was rather disappointed to find two serious historical errors in that issue. Worse, I was nearly crushed to find that one of them appeared in "War in the Shallow Seas", written by none other. The other error, of monumental proportions, appears in Charles Markuss' otherwise fine article, "The Lone Wolves".

Your introduction to Scenario 20, "Strait of Surigao" reads, in part, "Brushing a screen of American PT boats and destroyers aside, Nishimura's force was defeated in a heated action with the US Navy capital ships on 20 October 1944." Nishimura was, of course, defeated (disemboweled, actually), but the American battle line under Admiral Oldendorf played only a tangential role. The blame for this wasteful underutilization of his battleships rests completely with Oldendorf; his pre-battle disposition of his three destroyer squadrons was so inspired that Nishimura was left with little more than momentum, and not much of that, with which to challenge the American line. Launched not by a "screen" but by a carefully planned and executed ambush, American destroyer torpedoes accounted for both Japanese battleships (*Fuso* was literally disemboweled, *Yamashiro* reduced to five knots, no main batteries) and three destroyers. The remainder of Nishimura's force began a long flanking movement to the rear. Shells from *California*, et. al., only increased *Yamashiro*'s downward velocity. And three US cruisers could not settle *Mogami*'s account; Halsey's carrier planes had to finish her later in the morning.

Having your column *shredded* by their torpedoes hardly qualifies as "Brushing a screen of . . . destroyers aside." (If the torpedo that crippled *Abukuma* indeed came from a PT boat—it would be hard to say, with at least 70 loose torpedoes in the water—it was the only score the PTs could claim.) [See Paul S. Dull, *A Battle History of the Imperial Japanese Navy* and Theodore Roscoe, *Tin Cans*.]

Mr. Markuss' error is more serious. He writes, "... British detonators worked, but being non-magnetic types were of much lower destruction than the reliable American Mk. 14." To call the Mark 14 torpedo with its Mark 6 magnetic influence detonator "reliable" is on a par with calling the *Hunley* a submarine. Ultimately, near the end of 1943, the Mark 14 did become a reliable torpedo, but the evolution of this high-tech piece of junk into a dependable weapon took over a year from the time defects were first acknowledged. That evolution proceeded in three separate stages.

The first stage involved determining at what depth the torpedoes actually ran (in contrast to the depth set by the launching crew and expected by the submarine's commander); the Mark 14 was found to run at least ten feet deeper than set. Actually, many "fish" travelled in a vertical sine wave, with a hit occurring only when the high point of the curve coincided with the low point of the target's hull. And, no, the magnetic influence detonator did not obviate the error since, first, crews were already setting the Mark 14 to run under the target to take advantage of the expected influence-detonation and, second, the torpedo often ran so deep that the anti-countermining device kept the firing pin locked. Once these facts were understood, the problem was solved; right?

Wrong.

Correcting for the depth-control problem (subtracting 11 feet from the calculated depth to obtain the correct setting) actually caused a much more dangerous problem: running at proper depth, the Mark 14 detonated prematurely, either immediately upon arming (approximately 400 yards from the launch tube) or when first entering the horizontal component of the target's magnetic field. One result was that enemy capital ships, with heavy armor belts and thus large magnetic fields, were nearly invulnerable to Mark 14 torpedoes (ironically so, since the Mark 14 had been expressly designed with capital ships in mind). The result was the simultaneous movement of target vessels away from and escort vessels toward the launching submarine's position. Thus, the second stage of the Mark 14's evolution involved completely deactivating the

Letters to the Editor . . .

magnetic influence mechanism of the detonator as being not even theoretically workable. In fact, the geographic location of a target ship actually determined the shape of its magnetic field and, hence, the behavior of the torpedo.

How many American submarine crews were lost as a result of premature detonation of Mark 14's? No one knows. But the Mark 14 also embodied a standard, tried-and-true contact detonator (perhaps intended by the designers for use against wooden ships and the odd minesweeper). Thus, with the deactivation of the magnetic detonator, the problem should have been solved; right?

Wrong.

If a now-nonmagnetic Mark 14 struck the target ship's hull at an angle anywhere near 90 degrees (a "normal" hit in both senses), the contact detonator would not work. Indeed, approximately 70% of Mark 14s failed in tests under these conditions. Hits at angles up to 45 degrees were more successful, but even then performance was far from "reliable" (a 50% failure rate). In this last stage of evolution, then, the Mark 14 acquired a new firing pin machined (at first on the spot in Pearl's workshops) from the lightweight, high-tensile alloy in discarded aircraft propellers.

Three months into the war, American submarine commanders knew their torpedoes weren't right, but bureaucratic inertia and high-level posterior protection caused unconscionable delay in correcting the problems. Rear Admiral Christie (CIC, Submarines SW Pacific) was one of the original inventors of the influence detonator and retained it in the ships under his command until ordered to dispense with it by his new superior, Admiral Kinkaid—long after Rear Admiral Lockwood (CIC, Submarines Pacific) had banned it from submarines operating under his control! And the US Navy's Bureau of Ordnance, which should have found the problems before allowing operational usage, had not even test fired a combat-ready Mark 14 and did not do so until ordered by Admiral King; they persisted in blaming submarine crews and officers for missing targets!

Incidentally, American destroyers were equipped with the same "reliable" torpedoes. Analyze a year's hard fighting in the Solomons with that in mind. I don't know if American PTs carried this star-crossed fish but would assume that their deck-launch tubes were similar to those on destroyers. American aircraft started the war with an entirely different torpedo, the slower but reliable Mark 13. American S-class submarines, of course, used the reliable, non-magnetic Mark 10—hence *S-44*'s victory over *Kako*.

The Mark 14 did become a reliable torpedo and, in a reincarnation as the Mark 23, was favored by many commanders over the slower electric Mark 18 for attacks on high-speed escorts. But, in contrast to what Mr. Markuss' remarks indicate, it did not do so until it had ceased to have a magnetic influence detonator. In fact, no combatant navy in World War II was able to make a success of magnetic influence detonators on torpedoes. The *Kriegsmarine* tried and gave up in 1940; the Royal Navy tried and almost lost *Bismarck*; the Japanese never bothered and had the best torpedo in the world.

With all this in mind, I would recommend that all tactical naval wargames impose serious To Hit penalties, including premature-induced counterattacks, against all Mark 14 equipped ships in scenarios set prior to October 1943 and against all Southwest Pacific ships (including Brisbane-based submarines) prior to November 1943. Such penalties should not apply to American S-class submarines.

I find myself in a quandry. Both of these articles are fine pieces with what appear to be exciting scenarios. And no one expects wargames to carry general education credit in World History. On the other hand, military and naval history are the foundations of wargames—as opposed to fantasy or science fiction games—and no wargamer can engage in play without at least superficial reference to historical antecedents. Further, if in the process of presenting a wargame or scenario we choose to transmit historical information, we owe it to our co-hobbyists to transmit accurate information. Finally, and with particular reference to Mr. Markuss' article, past military technological boondoggles are of crucial importance to us to-

day, who not only pay an astronomical amount of money to maintain a technological military but also live under the shadow of the threat of its application.

On balance, I can only say that I will expect better from *The GENERAL* in the future.

Ron Webb
Gering, Nebraska

★★★★★

Dear Mr. Martin:

I would like to tell you a little about myself. I have been wargaming for five years now and am a member of a highly regarded local gaming group (SAGA). I have 100 games and am a collector of old games. I enjoy Avalon Hill games immensely, but don't restrict myself to just those (though they are the best). I am an active member in my group, and I am planning to attend (and judge at) Gen Con XX this year and Origins next year. I consider myself a good tactician (I'll make you sweat!) and I have designed a few unpublished mini-games, along with designing scenarios for other companies (some of which have been accepted for playtesting). I consider myself a hardcore *SL* player, but I also enjoy the "classics" like *THE RUSSIAN CAMPAIGN*, *PANZER LEADER*, *ANZIO*, etc. I play all types of games from role-playing to computer, board to miniatures (via GHQ and *STREETS OF FIRE*).

Sounds impressive, right? If you met me at a convention and talked with me for awhile, you would give me the same respect you would give other gamers, wouldn't you? I probably would. Now try and fathom this—I'm only 15 years old. Gasp! Be honest; your respect for me just went down a couple of notches, didn't it? "Don't let that 'infant' into our gaming group! We better set up an age limit so that teenage D&D junkies can't get in! He's so young, he can't know anything; ignore him and maybe he'll go away."

Attitudes like this run rampant in the gaming community today. Now don't get me wrong. I can understand why people do this; a lot of teenage gamers are immature and have the IQ of a doorstop. But for every "doorstop" there is a legitimate young gamer that will give 100% to prove himself to you veterans. When I first became a gamer, I would tell people my age and they would treat me like I was a criminal. If I don't tell a person my age, they treat me like a normal intelligent human being and all goes well. When I was looking for a gaming group, I had to deal with guys that were ten or more years older than I was. Needless-to-say, I didn't tell them my age until after a couple of weeks. When they were considering me for SAGA membership, I went ahead and informed them of my age. They went ahead and voted me a full member anyway.

What I am trying to get across here is that, yes, a lot of teenage gamers don't have enough maturity to fill a thimble, but then there are those of us that are legitimate in our love of the hobby. Age limits on your groups are great deterrents for the "doorstops." I spoke of earlier; but if someone under your limit has legitimate cause and desire to join your group, give him a chance. You don't even have to make him a full member, but at least give us younger fellows the chance you would give other gamers. If anyone feels the urge to banter the topic around with me, feel free to contact me at 3824 SW 29th Street, Des Moines, IA 50321.

Eric Huber
Des Moines, Iowa

★★★★★

Dear Mr. Martin:

In response to Mr. Murillo, let me say that I too dislike the statistical analysis approach in principle. I find, however, I do use some of this mathematical mumbo-jumbo; I do not, though, resort to a calculator the moment an enemy tops the rise, as many players do, or at any other time.

As for the "perfect plan" articles, I rejoice when an opponent uses such set-ups. Not only do I know the correct counter-plan, but I know

such an opponent has little imagination—which is an important factor in assessing such an opponent's plans and capabilities. Consequently few of my opponents have ever used such plans, nor do I. For me, these plans are a guide to points of importance . . . things to keep in mind . . . when creating my own set-up. It is my hope that such articles continue as they may reveal a strength or weakness I had not previously seen.

Tom Cundiff
St. Bernice, Indiana

★★★★★

Dear Sir,

It was with delight that I read Robert C. Clark's "The Pieces of PANZER LEADER" (Vol. 23, No. 2 of *The GENERAL*). Over the years, I had almost come to memorize Larry McNaney's "The Pieces of PANZERBLITZ", which appeared way back in Vol. 11, No. 4—over twelve years ago. (Has it really been that long???) Mr. Clark's article is welcome and long-awaited supplement.

However, I do feel that Mr. Clark has unfairly dismissed one tank out of hand—the German Mark III. It is true, as he states, that the Mk. III was meant to occupy the middle ground between the Mk. II and the Mk. IV. But it most certainly was *not* "almost useless as a tank in Europe", as he suggests. On the contrary, the Mk. III was the main battle tank of the panzer divisions from 1941 right up until 1943. This superb vehicle had originally mounted a 37mm gun, but was re-equipped with first the short, and then the long-barrelled 50mm in order to cope with its Russian opponents. The combat effectiveness of some of Mk. IIIs was further enhanced by the addition of extra plates of face-hardened steel. Its career in North Africa was even more illustrious, as there the Mk. III comprised the principle armored striking power of the Afrika Korps for much of the war in the desert.

From Gazala to Kursk, the Mark III was always in the vanguard of the attack and very often led the rearguard of the retreat. Ungunned and unarmored, it survived by virtue of its sound basic design, robustness and adaptability—qualities that made the Mk. III one of the finest tanks of the Second World War.

Ken Ramstead
Chomedey, Quebec

★★★★★

Dear Mr. Martin:

I am an avid reader and devoted fan of *The GENERAL* and snap one up whenever I can find them (which unfortunately is rarely). I like your Series Replay feature, and read them all. I particularly enjoyed the "Series Replay" in Vol. 21, #6 and, on playing it with a friend of mine, found it to be just as one-sided (although our contest was not as close as yours). I, being the Marine commander (Sgt. "Trips" Callahan), destroyed the VC ambush (led by Col. Chang) and in so doing upheld their proud tradition of never having lost the scenario. *FIREPOWER* is my pet favorite at the moment.

Being a Viet Nam "freak", I was interested (to say the least) to read of the campaign rules in Vol. 21, #6. Unfortunately the matrix and counters were sadly missing from my issue. Could you send a replacement as I would much appreciate it. "Colonel Chang" (Paul to others) and myself have met in every major battle fought in *FIREPOWER*, and all have left my Vietnamese friend frustrated. One wonders how the U.S. lost that war.

Subscriptions to *The GENERAL* are hard to come by here. I was wondering if you could put me in touch with the necessary people in this country? All our club members agree that having *The GENERAL* available would make club life more enjoyable.

I am a reasonably experienced wargamer who hopes to continue his contact with this wonderful hobby. I unfortunately don't have the time, as on 4th August I begin my two-year compulsory military service in the Medical Corps (of all places for a cardboard soldier like myself). Sir, to you and Dr. Fratelli, Don Greenwood and Craig Taylor, many thanks for many good memories. You are heroes in our club, and it has been a privilege to have been able to communicate with you. Keep up the wonderful work displayed in *The GENERAL*.

Neil Amore
Boksburg, Transvaal, South Africa



THE ROAD TO LITTLE ROUND TOP

DEVIL'S DEN By Mail

By James Lutz

Presented here, for those who enjoy games of the Civil War period but lack face-to-face opponents, is a play-by-mail system for *DEVIL'S DEN*. Admittedly players could come up with a similar system on their own, but having one in these pages provides a standard format that players can agree on and use without resorting to long phone discussions or innumerable letters. A Random Number Table is essential for the system and, although the table and a variation of the method that will be used have been described in these pages before (as recently as Vol. 19, No. 6), it is provided again to demonstrate its use in the context of the by-mail play of this game.

It should be mentioned that *DEVIL'S DEN* is well-suited in some respects for play by mail, and in some ways it is not. As a simulation, the game loses some of the "feel" of the tactical situation when played at a leisurely pace by mail. With each hex representing a small amount of ground and counters for individual regimental commanders and companies, the tactical level of the game is obvious. The equivalent units on the *GETTYSBURG* board are represented by three infantry counters each on the Union and Confederate side (the number of artillery counters vary depending on the version of *GETTYSBURG* played); approximately 20 hexes on the *GETTYSBURG* mapboard cover the same ground as the boards in *DEVIL'S DEN*. To some extent the game bears the stamp of *SQUAD LEADER* in its tactical scope, although without (thankfully) the multitude of complexities. Weaponry was simpler in this period. The general similarity to *SL* does mean, however, that the game system has significant potential for adaptation to other battles or portions of battles from the Civil War.

The game can profit by a mail system, notwithstanding the loss of the tactical feel. The length of the game, particularly the long scenario, favors mail play. Face-to-face play can consume a very long evening, particularly when the Advanced Rules are used. Fatigue, not only on the part of Law's Brigade, often becomes an operative factor. Of course, such fatigue on the part of opposing players can be an excellent simulation of reality, but it isn't necessarily very stimulating. What is lost by way of simulation may be regained in a mail contest in terms of game playability. Face-to-face play is probably the better simulation, but by mail may make for a better game. Even with Advanced Rules in play, the

mail system will require only three mailings per each player portion of a turn in which there is combat—two by the moving player and one by the defending player. Action by the defender is relatively simple in any event. Two weeks would normally suffice for players on different coasts per each player segment, and a turn can be completed in a month. For players residing closer, with a two- or three-day delivery period for mail, the pace of the game will be much quicker.

First Mailing

The first mailing constitutes the command phase, activation phase, and movement phase of the Confederate or Union player turn. (Spontaneous rally attempts are covered in a different mailing.) The moving player deals with these activities as necessary. The moving player must be very careful to specify the facing of his units. The hex grain runs east/west on the mapboard; therefore, the possibilities are defined to be *W*, *NW*, *NE*, *E*, *SE* and *SW*. The compass on the board will facilitate the identification of the appropriate facings. *If a player fails to list a facing, it is assumed to be the facing necessary to enter the final hex reached by a moving unit, or the facing from the previous turn for a non-moving unit.* The moving player will also need to remember to indicate which unit is on top of a stack. Any convenient and agreeable convention, such as "(1)" for top and "(2)" for second in the stack should work. *If the moving player neglects to provide a stacking order, the defending player has the choice in fire combat of which unit in a stack to fire at.*

Provision for die rolls for random movement and gathering ammo may be needed for the troops of the moving player. In both of these instances, the moving player may have to make contingency plans for random movement (advance or retreat), and perhaps in terms of ammo gathering as well. The rulebook is actually unclear as to when ammo gathering occurs. It is suggested in the body of the rules as occurring in the Activation Phase (p. 19, 40.4). The turn sequence, on the other hand, places it at the end of the turn (p. 31, "Sequence of Play" Chart). The players will need to agree on exactly when it does occur. If they agree that the end of the turn is the logical place to discover ammo (thus preventing troops from firing offen-

sively in the turn on which they attempt to gather ammo), the die roll for this will occur in the third mailing, although the orders must still be given in the first mailing. Regardless of when ammo gathering does occur, the players might prefer for movement to occur as written whether the units successfully gather ammo or not, since the commander would not necessarily know whether the attempt was profitable. The lack of this foreknowledge for random movement is an appropriate reflection of reality also since units did not always follow orders as given.

The moving player will mail his turn to the opponent with a CTD later than the postmark if his move requires die rolls. He can list units attempting to gather ammo, and either individual stocks for results or one stock that will determine the starting point for die rolls to be drawn from the Random Number Table. A similar procedure can be followed for possible random movement.

Second Mailing

Once the defending player receives the move, he plots the units on the board and checks the results for random movement and ammo gathering, if applicable. He will have to report these results to his opponent, of course. He then allocates his defensive fire on his move. He will need to provide for the series of possible die rolls for various activities (listed below) with an appropriate CTD and stocks.

He lists his attacks in any order he desires and picks a stock for use with the Random Number Table. On that table, the first of the pairs of numbers represents the tens and the second the ones (that is, a "3" and a "4" equal "34"). Scattering of artillery fire is also included in the defensive fire list, except that the two numbers are added together rather than being sequential (that is, a "3" and a "4" equal "7"). The moving player will be able to calculate casualties and disrupted results from this list. If a top unit is eliminated (by artillery fire, for example), the second unit in the stack, if any, is now affected by results from any subsequent infantry fire.

Another stock must be provided for possible officer casualties that may occur. (This stock can be omitted, of course, if there are no hexes con-

taining officers that are fired on.) Once casualties to infantry units are determined, any possible officer casualties are checked with the pairs of numbers used being added. The order in which the casualties are checked can be the order in which they appear in the list of attacks and are in jeopardy, or in the order in which they are listed in the "Morale and Officer Casualty Chart". If the chart is used, the brigade officers are checked first (if endangered) and any regimental officers affected next, per the order on the chart. If the officers commanding the 4th Alabama and the 47th Alabama are both in hexes where casualties have occurred, the officer for the 4th Alabama is checked first. The order is *not* changed as a result of replacement officers appearing. They are treated as if they were the originals. If Hood's Staff is in play, it is checked first if in jeopardy.

A third stock has to be provided for using the Random Number Table for possible morale deteriorations due to casualties suffered and impact from the retreats of friendly units. Any unit suffering losses in the Defensive Fire Phase is checked for morale according to the listing in the "Morale and Officer Casualty Chart", with only one number from the table being needed for each check. If the 86NY/2 and 86NY/4 both must be checked, the 86NY/2 is checked first since it is the lower numbered company. After any retreats are made, any morale checks due to the retreat of friendly units are made. A separate stock may be provided for these checks or the checks can simply be a continuation on the Random Number Table from the point where the last morale check for casualties occurred. The order provided in the Morale and Officer Casualty Chart will be essential for these checks regardless of which method is used. If you do not know your opponent well, you may wish to require him to make his retreats, mail a list of the units

affected by retreats, pick a stock and CTD, and then check and report the results of the retreats before he conducts his offensive fire. This method will result in a two-day delay or so in the move being finished. Most of the retreat routes will be fairly obvious, I should think; your opponent would not voluntarily retreat any unit through friendly forces if such action could be avoided.

A stock may have to be provided for possible ammo depletion due to volley fire early in the game, or the chance of low ammo late in the game. If no volley fire is attempted in the first half of the long scenario, or in the Devil's Den scenario, there will be no need for this stock selection. The defending player can either list the units that need to check, or let the moving player use the order in the "Morale and Officer Casualty Chart" again. Since the possibility of running low on ammo does depend upon inflicting casualties, the Chart is probably the better method. Only units that might run low are checked. Units firing but not inflicting casualties with regular fire, for example, could be ignored.

It should be noted that in this sequence of activity, fire and results are simultaneous rather than sequential—a more realistic simulation of combat—as are the morale checks that occur at the same time. There will be a subtle change in the play of the game since units will not be subject to immediate retreat. In a face-to-face game, the firing player has the advantage of observing the results of one fire effort before allocating the next fire attempt. A retreating unit could actually expose a new unit to fire in the face-to-face game!

Third Mailing

Once the moving player has checked the results of the defensive fire, made the necessary morale checks and retreated units, he can conduct his offen-

sive fire and perform the other functions necessary to conclude the player turn. The first part of the move parallels that for defensive fire:

1. List all combat fire attacks, including artillery fire, and pick a stock for use with the Random Number Table.
2. Provide a stock for possible officer casualties, if applicable.
3. Provide a stock for morale rolls resulting from the fire combat and retreats (one stock or separate stocks as the players may agree).
4. Provide a stock for possible ammo depletion.

In addition, this mailing must take into account the possibility of melee combat generated by the moving player. A stock must be provided for the resolution of melee, if applicable. In addition, the moving player will also have to indicate whether he will occupy a particular hex should it become vacant due to fire combat.

If melee combat is possible, a stock may have to be provided for possible officer casualties if an officer is involved for one or both players. If officers for both sides may suffer wounds, the Confederate officer is checked first.

Morale rolls as a result of casualties are possible. Units that charged will need to check morale, as will units that retreated. If only one stock is used, first morale is checked for any Confederate units suffering losses, then any Union forces suffering losses, then the possibility of retreats by charging units of the moving player, then any Confederate units affected by retreat of friendly units, and finally any Union troops affected by retreats. The order listed in the "Morale and Officer Casualty Chart" can be used for all these morale checks.

When melee combat is possible, the moving player will have to specify various alternatives that

OUTLINE OF MAILINGS

| Mailing | Activities Included | Possible Die Rolls (and number of "die" required) |
|---------|---|--|
| 1 | Command Phase Activation Phase Movement Phase | Random Movement (1) Gathering Ammo (1)* |
| 2 | Defensive Fire Phase | Results of Fire (including Artillery Fire Scattering) (2) Possible Officer Casualties (2) Morale Rolls due to Combat Losses (1) Morale Rolls due to Retreat (1) Volley Fire and Ammo Depletion (1) |
| 3 | Offensive Fire Phase | Results of Fire (including Artillery Fire Scattering) (2) Possible Officer Casualties (2) Morale Rolls due to Combat Losses (1) Morale Rolls due to Retreat (1) Volley Fire and Ammo Depletion (1) |
| | Melee Phase | Results of Melee Combat (1) Possible Officer Casualties (2) Morale Rolls for both Combatants (1) Morale Rolls due to Retreats (1) Morale Rolls due to Charging (1) |
| | Breastworks | Attempts to Complete (1) |
| | Fatigue (Union only) | Check for Fatigue of Law's Brigade fr Next Turn |
| | Spontaneous Rally | Attempts for Disrupted Units of the Defending Player |

* May occur in the Third Mailing if players agree.

MORALE AND OFFICER CASUALTY CHART

| Confederate | Union |
|--------------------|---------------|
| Benning | Ward |
| Robertson | Vincent |
| Law | Weed |
| Hood | Warren |
| 4th AL | 4th ME |
| 15th AL | 86th NY |
| 44th AL | 124th NY |
| 47th AL | 2nd USSS |
| 48th AL | 4 NY Battery |
| 3rd AR | 99th PA |
| 1st TX | 20th ME |
| 4th TX | 16th MI |
| 5th TX | 44th NY |
| 2nd GA | 83rd PA |
| 15th GA | 6th NJ |
| 17th GA | 140th NY |
| 11th GA | D5 US Battery |
| 59th GA | 146th NY |
| Branch Artillery | 91st PA |
| Rowan Artillery | 155th PA |
| Richmond Artillery | |
| 1st TX SS | |
| 4th TX SS | |
| 5th TX SS | |
| 3rd AR SS | |

Infantry Casualties: Check morale of *affected* units in the order above, ignoring officers that are separate counters. If more than one company of the same regiment must check morale, the lowest numbered company is checked first.

Possible Officer Casualties: Order for regimental officers is the same as the order for the regiments above. Replacement officers are treated as if they were the original officers for the regiment or brigade.

THE RANDOM NUMBER TABLE

TABLE 1

| |
|------------------------|
| 1) 5 2 1 2 2 4 2 6 3 2 |
| 2) 2 5 3 6 4 6 6 6 3 3 |
| 3) 4 4 4 4 4 6 6 1 1 5 |
| 4) 6 5 6 3 3 5 3 2 4 3 |
| 5) 2 2 1 3 1 1 3 3 6 2 |
| 6) 4 5 3 6 4 5 4 3 1 6 |
| 7) 5 1 4 3 4 4 1 6 5 2 |
| 8) 5 1 3 6 1 3 4 3 5 5 |
| 9) 2 1 4 3 5 2 4 4 4 1 |
| 0) 5 5 5 1 2 2 1 5 1 4 |

TABLE 2

| |
|------------------------|
| 1) 6 4 4 5 6 2 2 5 5 5 |
| 2) 3 6 4 2 3 1 4 3 6 5 |
| 3) 3 6 6 4 1 4 5 2 1 6 |
| 4) 3 1 2 2 1 3 5 3 3 4 |
| 5) 5 2 4 5 1 1 6 6 1 3 |
| 6) 3 4 2 1 5 2 3 5 2 5 |
| 7) 5 1 2 1 4 2 3 1 1 2 |
| 8) 4 5 4 5 2 3 4 3 3 1 |
| 9) 6 2 2 6 5 3 1 5 2 4 |
| 0) 5 3 1 2 1 6 5 4 2 5 |

TABLE 3

| |
|------------------------|
| 1) 5 5 6 3 1 3 2 6 3 1 |
| 2) 5 2 3 6 4 6 2 6 1 2 |
| 3) 2 6 2 3 6 2 4 3 1 3 |
| 4) 6 4 6 1 2 4 2 2 5 2 |
| 5) 2 2 5 4 2 3 2 2 5 5 |
| 6) 4 4 4 6 4 5 4 3 1 3 |
| 7) 3 4 2 3 2 2 5 6 2 2 |
| 8) 5 2 2 1 5 2 5 6 4 2 |
| 9) 6 5 5 6 1 3 6 2 5 3 |
| 0) 1 2 5 6 2 2 1 6 2 6 |

TABLE 4

| |
|------------------------|
| 1) 1 2 2 1 3 2 3 6 5 1 |
| 2) 1 5 1 1 3 2 6 5 1 2 |
| 3) 4 4 3 4 1 5 1 2 3 3 |
| 4) 5 2 4 2 1 5 5 6 1 5 |
| 5) 1 2 5 6 2 4 4 3 6 3 |
| 6) 3 3 1 4 6 5 3 6 3 1 |
| 7) 6 5 3 6 6 4 3 2 1 6 |
| 8) 6 6 1 2 4 3 1 2 3 3 |
| 9) 2 6 4 5 2 4 6 4 5 3 |
| 0) 4 1 6 4 2 1 1 6 1 3 |

TABLE 5

| |
|------------------------|
| 1) 5 4 5 1 4 1 5 4 6 2 |
| 2) 6 3 5 6 4 4 6 4 1 6 |
| 3) 1 2 3 2 3 3 6 5 6 2 |
| 4) 3 3 3 5 5 3 4 5 6 2 |
| 5) 4 3 6 2 4 3 5 4 3 3 |
| 6) 5 1 3 4 6 2 1 5 6 4 |
| 7) 3 5 1 2 2 2 4 1 1 2 |
| 8) 3 4 2 5 3 1 5 5 5 6 |
| 9) 3 3 4 5 6 1 1 3 2 6 |
| 0) 5 1 5 3 1 6 2 2 2 5 |

TABLE 6

| |
|------------------------|
| 1) 1 4 2 2 5 3 3 6 1 4 |
| 2) 4 4 1 2 6 2 2 1 1 4 |
| 3) 5 5 5 6 6 2 5 2 3 5 |
| 4) 5 5 4 6 1 4 1 2 2 4 |
| 5) 5 6 4 3 3 2 3 3 4 3 |
| 6) 4 5 5 3 6 1 5 1 5 3 |
| 7) 4 6 1 5 4 6 1 3 2 3 |
| 8) 3 1 4 6 3 5 2 1 2 1 |
| 9) 1 1 6 1 1 5 1 5 3 1 |
| 0) 1 3 6 2 2 6 2 6 3 6 |

TABLE 7

| |
|------------------------|
| 1) 6 5 2 4 5 4 2 2 6 6 |
| 2) 3 4 3 1 6 3 5 5 3 6 |
| 3) 6 1 1 2 3 2 2 3 2 5 |
| 4) 6 5 3 2 5 6 1 5 6 6 |
| 5) 1 5 1 5 6 3 5 5 6 4 |
| 6) 4 3 6 2 3 5 1 5 1 6 |
| 7) 5 3 4 2 3 1 4 2 5 5 |
| 8) 5 1 6 4 6 3 3 1 1 1 |
| 9) 2 1 1 2 6 4 2 1 6 5 |
| 0) 5 4 6 6 3 2 1 1 2 4 |

TABLE 8

| |
|------------------------|
| 1) 5 1 2 3 3 3 1 6 5 1 |
| 2) 2 3 2 3 4 4 6 3 2 4 |
| 3) 6 1 1 4 3 2 4 6 5 3 |
| 4) 3 5 6 1 6 1 4 1 3 6 |
| 5) 2 4 6 3 3 1 2 1 3 6 |
| 6) 1 2 6 6 3 4 4 3 5 6 |
| 7) 3 5 1 5 3 5 3 1 2 6 |
| 8) 2 5 5 2 3 3 1 1 4 3 |
| 9) 2 6 2 6 1 2 4 6 2 4 |
| 0) 2 4 5 4 2 5 1 1 6 3 |

TABLE 9

| |
|------------------------|
| 1) 5 4 3 2 2 3 5 6 1 4 |
| 2) 3 1 2 4 6 4 3 2 3 2 |
| 3) 2 3 6 6 1 3 1 5 1 6 |
| 4) 3 6 5 3 6 2 5 6 4 4 |
| 5) 3 5 1 1 6 3 6 5 6 4 |
| 6) 2 5 6 2 6 4 3 6 6 6 |
| 7) 2 3 5 5 3 1 5 1 2 5 |
| 8) 2 2 2 4 6 3 3 2 3 6 |
| 9) 3 2 5 4 1 6 6 6 3 1 |
| 0) 4 2 5 3 1 6 4 5 5 4 |

TABLE 0

| |
|------------------------|
| 1) 5 6 3 6 3 2 6 2 4 2 |
| 2) 3 6 2 4 1 3 5 3 2 4 |
| 3) 3 4 1 6 3 1 2 3 4 3 |
| 4) 2 4 2 4 3 4 6 4 5 4 |
| 5) 4 3 5 4 1 3 3 3 6 5 |
| 6) 4 1 2 4 2 3 3 3 4 6 |
| 7) 1 6 6 3 6 3 1 3 6 5 |
| 8) 6 2 3 4 4 1 1 4 3 5 |
| 9) 4 6 2 6 1 4 6 6 5 2 |
| 0) 5 6 3 4 1 6 3 4 4 1 |

USE OF THE RANDOM NUMBER TABLE

Rather than relying on a seemingly endless list of stocks, the Random Number Table below can be used to compute results. It does rely on having a newspaper available to select stocks that specify a starting point in the table that will be used, but the effort involved for the players is much less. A stock is chosen for each series of die rolls that are necessary for a mailing in *DEVIL'S DEN* (as described in "The Road to Little Round Top"). The sales in hundreds provide the table number, row number and column entry to be used. For example, if the stock sales for the selected date are 567, it means that the first die roll will be located in table 5, row 6, the seventh entry. In this case, the first die roll is a "1". The next die rolls would be "5", "6", "4", respectively. When the end of a row is reached, continue on with the first number in the beginning of the next row. When the tenth entry on the tenth row is reached, proceed to the first entry on the first row of the next table. Note that table 1 follows table 0 in the latter case. If the stock chosen has sales above 999, ignore the additional digits; thus, 1256 sales in the hundreds means that the second table, fifth row and sixth entry will provide the first die roll. The "1" is ignored. If a stock is picked that has only a two-digit sales figure, the table is "0"; thus 92 for a sales figure translates to the 0 table, ninth row and second entry. It is probably better to choose the better known and more active stocks when a choice is made to generate more variation in terms of the tables that will come into play.

As an example, it is Turn 2 of the game and time for the CSA offensive fire. The Rebel troops have taken some early casualties, but their opportunity to inflict damage has arrived. For ease of presentation of the following example, this illustration assumes that there are no column shifts on the Fire Table.

| CSA Offensive Fire | Stock CBS | 1418 | | | |
|--------------------|------------|-------------|------|---------|--------|
| Hex | Attackers | Defenders | Fire | Terrain | Result |
| 1632 | 4TX/4 (4) | | | | |
| | 4TX/5 | 124NY/5 | 9 | Rough | 65:— |
| 1532 | 4TX/1 | 124NY/4 | | | |
| | 4TX/3 (D) | Col. Ellis | 11 | Rough | 11: 2 |
| 1432 | 4TX/2 | 124NY/3 (2) | 6 | Clear | 51:— |
| 1233 | 3AR/1 | | | | |
| | 3AR/4 | 4NY/1 | 13 | Clear | 13: 2 |
| 1333 | 3AR/2 | | | | |
| | 3AR/3 | | | | |
| | 3AR/5 | 4NY/2 (2) | 19 | Clear | 26: 1 |
| 1733 | 15AL/2 | | | | |
| | 15AL/6 (5) | 4ME/1 | | | |
| | 15AL/1 (D) | Col. Walker | 16 | Rough | 51:— |
| 1832 | 15AL/4 (5) | 4ME/2 | 5 | Rough | 24: D |
| 1932 | 4AL/4 (3) | 4ME/3 | 7 | Rough | 43:— |

(N) indicates that units are at reduced strength

(D) indicates disrupted units, -1 from fire strength

After resolving the fire combat, it is time for the Union player to check for possible officer casualties. The stock provided is ABC, with sales in the hundreds of 2732. Only Col. Ellis requires a check. The seventh table, third row and second entry yields a "1"; the next entry is also a "1". The final result equals "2", which means that Col. Ellis is killed.

The next step would be to check for the morale of affected units. The order in which they must be checked would be 4NY/1, 4NY/2 and 124NY/4. Any units subsequently affected by retreats of these units would also then have to be checked. The other activities for this mailing that may have occurred would then follow, using the stocks listed to draw numbers for the tables.

his units may face in terms of retreats or taking casualties to enable the defending player to move on to the next "first mailing" without delay. A little bit of writing is involved, but melee combat may not be all that frequent. The present method does eliminate a separate mailing for this type of combat.

If relevant, the moving player next provides a stock for the completion of breworks.

The moving player will also need to provide a stock for the possible spontaneous rally of disrupted units belonging to the defending player. Using this mailing will permit the defending player to identify all his affected units after all retreats and combats, and he can then move to the command and activation phases without delay. The "Morale and Officer Casualty Chart" is essential for this particular check since neither player will know at the time of the mailing which units are disrupted.

Lastly, the Union player will need to supply a stock for the next game turn for fatigue in the regiments of Law's Brigade for the appropriate turns.

Closing Comments

The above outline and summary in the attached "Mailing Chart" take into account virtually all of the Advanced Rules. If the Advanced Rules are not being used, the mailings become much simpler (and the game less realistic). Using none of the Advanced Rules will not limit the number of mailings, however. The only Advanced Rule not easily incorporated in the mail system is "Opportunity Fire". The players could agree that, in the case of a unit exiting from ZOC in the Movement Phase, defensive fire by the units adjacent at the beginning of the Movement Phase could be taken as if it were at one-hex range. Any retreat as a result of fire combat would be applied from the hex exited rather than the last hex moved into. Players insistent on including this rule in its entirety (firing at retreating units) can feel free to devise a mutually agreeable procedure of their own, realizing that there will be a cost in terms of extra mailings or long-distance phone calls. The Opportunity Fire rule is a realistic one, but it is not readily adapted to a play-by-mail system. The order of the units provided in the "Morale and Officer Casualty Chart" is essential for limiting the number of mailings. It provides a mechanism that, in combination with the Random Number Table, insures die rolls that cannot be specified in advance.

A number of conventions for play by mail are useful and worth noting. The player making the mailing should provide listings on a separate sheet for items that require die rolls—such as fire combat—so that the receiving player only need fill in the results. On other activities, the receiving player can list the units that are affected and provide the results. This list will also facilitate using the "Morale and Officer Casualty Chart". For example, using values from the attached Random Number Table:

| Morale Checks | Stock AT&T | 1736 |
|----------------------|-------------|------|
| 4AL/2 (5) | 2 | |
| 4AL/4 (5) | 2 | |
| 44AL/2 (3) | 3 | |
| or Spontaneous Rally | Stock NBC | 681 |
| 4ME/3 | 3 | |
| 86NY/1 | 1 (Rallies) | |
| 86NY/3 | 4 | |
| 86NY/4 | 6 | |
| 124NY/2 | 3 | |
| 124NY/3 | 5 | |

The more active stocks should be used for starts on the table. Picking small companies with low sales in the hundreds will lead to use of the "0" table with unwarranted frequency. One possibility is the "Most Active Stocks" list that is included in most major papers. The tables used will then vary greatly, and it is quite easy to use and clip for your oppo-

nent. For the second mailing, by way of example, the most active stock could be used for defensive fire combat results, the next most active for officer casualties, the third for morale rolls, and the fourth for possible ammo depletion.

The final important convention in playing by mail to remember is that only affected units are checked when using the chart. Only the officers in danger of being hit are checked, and only the units actually in danger of running out of ammo. This convention on affected units includes every unit subject "in theory" to a morale check, even if the presence of an officer with an "A" rating insures that morale will hold. Assign a number in this case. It is easier than assigning a number, then discovering that the unit was going to automatically pass, and being forced to change all the numbers that follow.

The most important thing to remember is to enjoy the game. By playing by mail, you'll have the chance to test your abilities against players of equal caliber. That is the best that our hobby can offer in competitive play.



All Aboard . . . Cont'd from Page 15

that shares don't have to be sold to meet limits—but there is no harm in timing dividend payments so that the stocks don't emerge from the yellow area until just after the last stock buying round. A partial defense against this scheme is not to buy minority shares of corporations without engines or shares of corporations which are obviously going to be abused. A second defense is to gang up on these corporations to minimize revenues by blocking routes.

A third version of such a scheme is a true swindle. This is to start a railroad like the *Erie* relatively late in the game; set share value at \$100; and then convince everybody to buy a share or two, but not enough to take away the presidency. Three shares (the president's certificate plus another share) are usually enough to pull this one off. If the *Erie* does float, the \$1000 (with an added \$100 of personal money) buys a new diesel for a small investment of private capital. The diesel is transferred at once; no track is ever laid. And no other engine is ever bought. With a little luck, the villain will even get to unload his three shares for \$76 each. The best defense here is not to invest; the second is to build a line into Buffalo so that the *Erie* has a run and must buy an engine. A lot of cooperation may be needed to accomplish this task for an unwilling president.

The scheme of selling shares to lower stock values usually has the effect of reducing the options of the remaining players holding that stock to sell and then buy something else. However, this usually doesn't affect the long term value of the stock a great deal, and can actually assist the long term investor to pick up these shares cheap. If the seller has a better deal available elsewhere, the selling must be done; but such trading should be evaluated in terms of long term gain for oneself rather than temporary pain to others.

Final Thoughts for Successful Play

Winning 1830 depends a lot on careful planning and taking advantage of opportunities when they occur. Resorting to the worst swindles may result in a victory in a particular game, but since each of us usually plays with the same few players repeatedly, reputations develop. There is a considerable advantage to any player who can get others to invest in the corporations he controls, particularly in the initial share dealing round. Later diversions of corporate funds should be on the conservative side so as to be dismissed as merely good business sense. Always remember that the free enterprise system that made America great is being simulated in your dining room.



AH Philosophy . . . Cont'd from Page 2

Don Greenwood introduces our new, easy-to-learn family game of television ratings, *TV WARS*. Craig Taylor takes you into the deadly skies with his tournament for *FLIGHT LEADER*. Charlie Kibler and Bob McNamara let you slug it out among the hedgerows of Normandy in the round-robin competition for *HEDGEROW HELL*, the *Deluxe* ASL module being premiered at the convention.

Some gamers go to the convention to meet and talk with the hobby professionals, taking them to task for their latest projects or picking their brains for hints or what's in store in the future. Informal Avalon Hill seminars being held this year include my own regular "GENERAL Subscriber's Seminar" on Saturday and the ASL seminar hosted by Bob McNamara and Don Greenwood on Sunday. Of course, you can usually buttonhole any specific designer on our staff at some point during the long weekend. Just drop by our product booth or keep an eye open for them wandering around looking shell-shocked.

Speaking of our booth, the Avalon Hill Game Company always takes advantage of ORIGINS to release several new games to the acclaim of the crowd. This year we have, we feel, a superior crop. Already mentioned (and advertised elsewhere in this issue) is *HEDGEROW HELL*. This *Deluxe* ASL module details the bitter fighting the Americans faced in the hedgerows of Normandy in June and July of 1944. With beautiful mapboards by Charlie Kibler, eight new scenarios, and vehicle cards for American AFV's, it is the perfect buy for those who have enjoyed *STREETS OF FIRE*. I understand that GHQ will have miniatures of American vehicles available at their booth; these are perfect for playing at this scale and is the ultimate for the hard-core ASL devotees.

RAID ON ST. NAZAIRE, a solitaire game developed by Don Greenwood from a design by Rob Markham and Mark Seaman, is sure to be a hit. From the initial run-in by the *Campbeltown* and the host of small boats to the final stand by the remaining commandos, it covers the controversial British raid to disable the great drydock. Counters represent everything from searchlight beams to placed demolition charges, MTBs to German armored cars. The comprehensive rules allow the entire action to be recreated in minute-to-minute detail. Optional rules allow you to vary the objectives and composition of your forces, as well as certain circumstances surrounding that fateful night. Can you do as well as, or better than, those highly-trained commandos? Those buyers at ORIGINS will be the first to try.

Finally (an unheralded surprise), Craig Taylor's design of *PLATOON*, a man-to-man tactical game based on the Academy Award-winning movie, will be released. Simple rules allow players to recreate three of the actions from the script of the story, as the Americans struggle against hordes of Vietnamese regulars. Hidden units, dense terrain, deadly weaponry, mines and fortifications, all serve to simulate the hell that was a daily environment for the "grunts" of that bitter war. The game's easy-to-play system is based upon Craig's best-selling *FIREPOWER*. Intended as a mass-market item, it is hoped that *PLATOON* will introduce wargaming to many intelligent adults interested in history but who have been unaware of our unique pastime.

And, of course, there are our other recent releases, games that many attending may not have seen yet—*BRITANNIA*, *PATTON'S BEST*, *YANKS* and *TV WARS*. Our booth will also have copies for sale of older and still popular games from Avalon Hill. Once again we will run a full "parts service" for those players needing extra mapboards, counter sheets or rules to their favorite game. Just drop by on Friday and let us know what you want; we'll have your parts order waiting for you on Sunday.

BEYOND MANIFEST DESTINY

American Play in PAX BRITANNICA

By James P. Werbaneth

PAX BRITANNICA is essentially a game of European competition for dominance of the vast uncolonized areas of Africa and Asia. Yet the United States can become a leading power, especially if the American player relies on the resources of his own hemisphere. If the American player establishes his state as the predominate power on the western map section, he will accumulate military power and use prudent investment, expansion and diplomacy to end the game in a vastly improved position.

The United States player must systematically implement a coherent strategy that takes advantage of the country's unique advantages and recognizes its long-term disadvantages. Its most important advantages are an early access to Latin America that can be challenged by only the most determined European power, a steadily growing merchant marine service that will carry American investment and expansion throughout the New World and across the Pacific, and the possibility that American "yellow press" journalism will allow it to wage an unprovoked war to add Spain's colonial possessions to the ascendant American empire. Its principle disadvantages are a small initial overseas empire, the need to expand the American military from a pathetic size to adequacy, and a relatively low colonial office income.

American investment and expansion must be centered on the Western Hemisphere. Because European attention will be almost always concentrated on Africa and Asia, particularly in the early game turns, the United States will have relatively little competition on the western map. Furthermore, rules presenting the United States with a *casus belli* against any other power expanding into the Western Hemisphere increase the chances that the only new control markers placed there will bear the Stars and Stripes.

Early American Investment and Expansion, 1880-1892

The placement of markers in *PAX BRITANNICA* represents two distinct but related efforts—investment and expansion. The establishment of interest and influence markers represents investment, as their primary purpose is to gain new revenues. Though protectorates, possessions and states/dominions sometimes produce impressive income, their most important function is to extend the power's sovereignty, gaining new territories and overseas military bases, thus representing expansion.

The United States has to engage in constant investment and opportunistic expansion. Its first investments should be an influence marker in Mexico and interests in Central America, Colombia and Venezuela. The first reinforcing merchant fleets are best placed in the South Pacific, then the South Atlantic, allowing the introduction of influences to Argentina and Brazil with interests in every other coastal area. The American Latin America investments will provide economic power to fuel expansion, military construction and further investment. Without a web of interest and influence on its own map, the United States is doomed to poverty, weakness and unimportance in this game.

Early American expansion is necessarily restricted by a low initial income, a weak army and navy, and rules limiting expansion in independent areas to those in unrest or beset by some political crisis (mostly, relevant South American war). Because of these factors, the United States is seldom able to expand in more than one or two areas before 1896.

It is imperative that the United States makes Hawaii a possession in 1880. In that year only, the United States has a merchant fleet prepositioned to provide a supply line back to a major power. Control of Hawaii is vital to the American player, and he has to insure that his control of the islands is indisputable as early as possible. Even if the American player has to spend every available treasury point to take control of Hawaii, the expenditure and neglect of other investments are worth it. Because Hawaii borders both the North and South Pacific, naval units maintained there can safeguard the searoutes to Latin America as well as those to Alaska and Asia. Strategically, Hawaii is as vital to the United States as the Cape Colony is to Great Britain. Later in the game, the American player should concentrate most of the units of his navy based in the Pacific basin at Hawaii. At that time, statehood will become necessary. Income will be reduced, but the ability to base large military forces in Hawaii will make the upgrading cost-effective.

If the United States is to expand anywhere else in the early period, it must be against "targets of opportunity" created in the Western Hemisphere by unrest or South American war. Such opportunities must be exploited with extreme care, as the early American army is a small and brittle instrument. Panama and Central America, especially the former, are attractive areas because they are the possible locations for the Caribbean-South Pacific canal. The least attractive areas are Mexico, Brazil and Argentina. Though their high economic values would make their control highly desirable, they possess high combat strengths as well that make them unwise sites for colonial combat.

Should the player feel tempted to engage in questionable expansion and flag-waving, he should remember that at no time is expansion on the New World's mainland imperative. The only area that must fall under American control is Hawaii.

Middle American Investment and Expansion, 1896-1904

During the middle period of *PAX BRITANNICA*, the United States investment effect in Latin America is one of consolidation. Interests in Brazil and Argentina are upgraded to influences, and interests are played in any as yet empty areas on the western map. Thus the great Latin American money machine is completed.

American investment should reach the Asian mainland in 1896. Siam and the coastal areas of the Chinese Empire are the most probable entry points for American investment. Interests in these areas pay for their costs of placement in two turns or less, and influences have the additional benefit of frustrating others' colonial ambitions. In this region of multi-lateral imperial competition, investment can have some heavily political connotations.

As the American army expands, the risks of exploiting Latin American unrest or war in South America decrease. By 1900, every Latin American area but Brazil and Mexico should be regarded as a potential target for expansion. However, influence markers established by competitors may prove to restrict United States expansion more stringently than the area's intrinsic combat strengths.

The American player should also seriously consider expansion into any heretofore uncontrolled area of Oceania. These tend to be unprofitable, but are very easily controlled. Furthermore, American expansion here in the middle turns may inhibit

Japanese investment and expansion south of China later in the game.

Late American Investment and Expansion, 1908-1916

The late game turns are those in which the American player uses his assets to insure his country's status as one of the premier colonial powers. In the New World, interests are converted to influences. Often this means sacrificing income, but it always results in doubling the victory points extracted at game's end from areas in which the investment was interest.

American investments should be in every coastal Chinese Empire zone not controlled by an imperial power. Also, the American player should be ready to place investments in any accessible areas in the Indian Ocean. Almost always, British-Russian competition will keep Persia independent and thus open to American investment.

By this time, the prudent American player will have expanded his military forces to the point that he has an extremely impressive ability to wage colonial combat. Yet his opportunities to do so in the Western Hemisphere will diminish sharply, often disappearing. As the formerly empty spaces of Africa and Asia become saturated with European status markers, every power except Russia will have the treasure to invest heavily in Latin America and the merchant fleets to maintain their investments. Though the United States will have more extensive investments than ever in its own hemisphere, the New World will cease to be its exclusive economic preserve.

But the American player finds new opportunities to expand in the Chinese Empire, particularly during the inevitable Chinese rebellion. Perhaps the American player will have to settle for a co-dominion with one or more competitors in China, but American expansion in some form should reach China. Also, it is occasionally possible for the United States to seize an Oceania area, or an African area on the Indian Ocean. "American New Guinea" or "American East Africa" might sound strange but they can and do happen in *PAX BRITANNICA*.

Military Construction

Military construction can present a profound problem in this game. Military units are needed to take and hold controlled areas, protect supply lines, deter major powers from war against your power, and prosecute when it does occur, and they usually contribute to the country's desirability as an ally and its undesirability as a member of an opposing alliance.

Yet expenditures on military power can be wasted money if excessively large forces are built and maintained overseas. Often players construct large armies that they cannot afford to maintain beyond the home country, and thus are unuseable for empire-building and of limited usefulness in deterring war. Such bloated forces reach their full level of usefulness in war—an unpredictable, destructive, and destabilizing phenomenon that even the strongest powers do well to avoid. Players on the course of such self-defeating policies do far better to scale back their military construction and devote the freed treasury points to investment and expansion. Status markers ultimately win *PAX BRITANNICA*, not armies and navies.

It is very easy for Britain, France or Germany to make this mistake. The historical example of

Kaiser Wilhelm II's attempt to build the world's greatest navy can be viewed by game player's as military construction at its most wasteful, destabilizing and ultimately counterproductive worst. The temptation to build inflated military establishments tends to be the most pronounced among powers with the greatest disposable income and the most extensive empires, and those with fewer holdings who feel that their most ambitious imperial designs are about to be realized.

However, this is hardly a problem for the American player. The initial forces of the United States are so inadequate that throughout most of the game, practically any military construction can be justified if it does not divert treasure from necessary investment and expansion. In terms of military power, the United States has nowhere to go but up; and the basic question of whether to build or not to build has less relevance to the American player than on any other.

The most important question to the American player is whether to build army or naval units. Only army units can defeat an area's inherent combat strength. The arguments of Alfred Thayer Mahan that large navies are necessary to gain and hold overseas territories against competitors largely hold true in *PAX BRITANNICA*, but naval units are useless in colonial combat. Massive navies do not automatically equate into empire.

Yet his navy is vital to the American player. The United States can seldom hope to gain naval parity with Britain, but can deter naval-centered hostilities by even the strongest major power. The United States player should strive for local naval supremacy on the western map, with roughly equal fleets based on the Caribbean-North Atlantic coast and on the North Pacific and adjacent sea zones, with flexibility enhanced by control of a Caribbean-Pacific canal. The navy should grow to its maximum size as the United States reaches its final form as a colonial and commercial empire.

Thus the United States needs both a large army and a large navy. Just how large is a subjective judgement to be made by the American player in light of his investment, expansion, ambitions and the military power of his competitors.

In the early stages of the game, American military construction should be modest, in line with the country's economic resources. Normally, the American player does best by constructing army and navy units in roughly equal strength and quantity at this time. Most new naval units should be deployed on the North Pacific coast or in Hawaii. Almost always the Pacific sealanes are far more vital to the United States than the sea zones of the Atlantic.

During the middle turns, the player can likely build his first ten-point counters. Construction should continue to be balanced between naval and land units, with the largest naval commitment still in the Pacific. American military construction reaches its zenith in the latest game turns. Most new units will be corps or fleets. Also, at this time, construction should be imbalanced in favor of naval units. The construction of a transoceanic canal makes deployment a less critical decision than in prior turns.

Special Problems

United States strategy and foreign policy must take advantage of special opportunities inherent in a war with Spain, construction of the transoceanic canal, and the partition of China. All three are important to the growth of American power and the emergence of the United States as a leading colonial empire.

In most cases, a war is the result of adroit foreign policy by a player who views war as in his interest, inept play by one for whom war will only erode his country's power, or a freak of fate in which a non-player minor power becomes unnaturally aggres-

sive. But a Spanish-American war is far different. Though the game is almost exclusively concerned with the rational accumulation and use of quantifiable national power, the "yellow journalism" random event allows the American player to expand on the basis of a *casus belli* derived from irrational domestic hysteria. No player is better served than the American by randomly occurring domestic illogic.

Spain's overseas empire is weakly garrisoned, overextended, and ultimately indefensible. Yet the United States is so weak at the outset of that any declaration of war against Spain in the early turns must be made cautiously. Often, the best option is to use the extra income derived from yellow journalism for investment and military construction, foregoing the declaration of war, and hope that yellow journalism reasserts itself when the United States is better prepared.

By the middle period, the United States should be able to seize Cuba, Puerto Rico and eventually the Philippines with little or no trouble. Spanish naval units in Cuba and the Philippines should be defeated quickly and all three possessions forced to surrender by naval blockade. Ideally, the Spanish navy will be defeated in detail and the Spanish army neutralized without the engagement of large American army units, before reinforcements from Spain can complicate local decisions. Proper preparation and careful planning always results in a quick and decisive American victory.

If the American player has built up his military forces at even a moderate rate, Spain will literally not have a chance of winning a Spanish-American war; late in the game, it will be hard-pressed even to make the American player momentarily uncomfortable. The American player can consider adding to the fruits of inevitable victory by placing a merchant fleet in the North Atlantic, possibly from the Caribbean, and seizing Rio de Oro as well as the rest of Spain's possessions. In this way, it is possible for the United States to gain a foothold in Africa, albeit an impoverished one.

Of course, there is no guarantee that the United States will ever have a *casus belli* against Spain. An American player with an early *casus belli* has to realize that an excuse for war may not arise later in the game. Yet he cannot declare war if the risk is unacceptable. The growth of the American military should be with a view toward relieving the Spaniards of their colonies. But the American player should never assume that he will have the opportunity to go to war, let alone fight on favorable terms. He must be prepared to end the game without the Philippines and the Spanish Caribbean colonies. The Spanish-American war is a contingency for which the American player should prepare; it is not an entitlement.

If American seizure of the Spanish possessions depends largely on luck, completion of a South Pacific-Caribbean canal is strictly a matter of determination. It is absolutely imperative that the United States build a canal in Panama or Central America. The fifteen special victory points awarded for building the first canal are important. But even if another power builds a canal first, the United States must complete one of its own. By having a canal under its control, the United States gains guaranteed freedom of movement and redeployment for its naval units. In addition, a canal of his own allows the American to foster friendly relations with potential allies who desire insured South Pacific to Caribbean transit.

The United States receives ten victory points if no other power has acquired permanent control of a Chinese Empire area in the course of the game. By no means should the American player make any effort to receive these points. It is in the best interests of Britain, France, Germany, Russia and Japan to strive to establish control throughout China, particularly after the Chinese rebellion that is always

a consequence of substantial major power investment in the Middle Kingdom. For the United States, trying to preserve the political integrity of China is almost as realistic as trying to keep a pack of starving wolves from a bloody side of beef.

Such unrealistic aspirations may have a great bearing on the influence of domestic politics on foreign policy, but they have no place in playing *PAX BRITANNICA*—or at least in playing *PAX BRITANNICA* well. Expansion in the Chinese Empire will normally result in more victory points at the end of the game than the unlikely preservation of China. Furthermore, by becoming a full partner in the partition, the United States can acquire a voice in the Empire's final disposition, and can subtly redirect competitors' energies from the Western Hemisphere. Seriously trying to prevent Chinese subjugation serves neither end, and is a bad investment.

Foreign Policy

In this game, foreign policy performs the same function that strategy and tactics perform in other, more purely military simulations. For game purposes, foreign policy is the use of previously acquired power and interplayer relations to increase one's objective and subjective power. As defined by Hans Morgenthau, the seminal foreign policy scholar, in his work *Politics Among Nations*, power is the ability of one actor to determine the thoughts and actions of other parties. For the purposes of both Morgenthau and of the *PAX BRITANNICA* player, the most relevant form of power is political power. Objective sources of political power include military force, economic resources, and support assets such as overseas bases and naval coaling rights. Subjective components of political power are less quantifiable character traits and abilities of the player himself, and assets derived from the player's use of power—primarily influence, prestige, energy, determination and applied aptitude.

The concept of power is central to everything that the player does. Use of military force in a war is an obvious manifestation of power, against another player or against a minor power. Colonial combat is also the use of power, in this case against the indigenous peoples or government of an area. Convincing one or more other players to support the player's initiative in a treaty or the restriction of investment and expansion in a region of the world is a primarily subjective example of power.

The American player has to accumulate both objective and subjective power. The program to increase objective power has four components. Aggressive investment, primarily in the Western Hemisphere, is to dramatically increase the United States' income. Using this new revenue, military units are built in increasing strength and quantity. Third, the proceeds of investment and the new military power fuel opportunistic expansion, almost always in the Western Hemisphere and Asia. Fourth the United States builds a transoceanic canal, regardless of whether one is already in place.

Subjective power is related to objective power. Constructing a sizeable military and acquiring a network of investments and colonies contributes toward the nebulous asset of "prestige". Sometimes nothing can earn more respect than a big fleet in the right place. In addition, the player has to act as a willing and eager member of the world imperialist community, staking claims and making deals like the more powerful Europeans. Acting as a New World "King Canute" ordering the major powers' tide from the beaches of China is not the way to build subjective power, and subtly working to turn the other players from China is self-defeating from an objective point of view.

PAX BRITANNICA's system of emerging alliances represents a growing opportunity for the American player to increase his subjective power. Every

European power, at some point in the game, is likely to consider joining an alliance; often this desire leads to the active recruitment of possible allies. If a country has a low level of objective power, the chances of it becoming a leading member of an alliance are small. A weak ally will find itself manipulated by its more powerful partners. As repudiation of the treaty of alliance before its expiration results in a *casus belli* by the other signatories, repudiation is difficult, especially for a weak power. Thus, the weak ally is caught in a dilemma between manipulation and destruction—a dilemma of its own making.

The situation changes if a country has significant objective power, or if its power is rising. It is much harder to manipulate an ally that can and is willing to resist encroachments on its autonomy. The more powerful a country is, the more likely its allies will make decisions affecting all members of the alliance by consensus, or at least by consultation. A strong ally is likely to be a full partner, and a weak one liable to be a pawn.

Despite the likelihood that it will be of a more independent mind, a strong ally is more valuable than a weak one. An alliance's strength is the strength of its members; an ally that brings little power to an alliance does little for that alliance.

Alliances are not associations of sentiment. They are the rationally (even cynically) concluded partnerships between powers with converging interests, primarily the advancement and defense of investments and colonies. In this game, the so-called "traditional friendships" between countries have even less bearing on play than domestic politics. Any major power can find strong reason at one time or another to sign a treaty of alliance with any other major power.

A basic tenet of American foreign policy should be to increase the desirability of the United States as an ally; and to consequently increase the chances that if it did enter into an alliance, the United States will not be a pawn of its partners. The American player should sound open to the concept of any alliance but negotiate towards getting significant, tangible gains as the price of that alliance—preferably concessions out of proportion to the United States' value as an ally. Possible American demands include reduced European investment in the New World, restrictions on non-American naval deployment in the Pacific, and guarantees that the United States has the exclusive right to build a trans-oceanic canal. Of course, any such concession must be written into the treaty of alliance.

The American player has to take great care in concluding alliances. In the early game turns, alliances are generally ill-advised and result in the exploitation of the United States. Even when the United States is at the zenith of its power, alliances are fraught with hazards, and the gains inherent in proffered alliances must be carefully weighed against the dangers.

An historical example of value to the American player is that of England between the reign of Henry VIII and the end of the 19th century. In that long period, England was alternately allied with and against Spain, France, Austria, Prussia, the United States, and Russia though it mainly held itself aloof from alliances. Britain's role was to play the "balancer", entering coalitions at the last moment to decide which alliance would prevail. To its detractors, the "balancer" was "perfidious Albion", but the policy did allow the British to repeatedly decide the outcome of war and other political phenomenon in Europe though the resources at their disposal were often less than those controlled by other major powers. With eventually massive economic power and carefully husbanded military power, especially on the seas, Britain became the premier colonial power in the 19th century. When Britain did enter into an alliance, it was mostly on a temporary basis. It would join forces with other

powers for a time, then slip back in nonalignment at the first opportunity, eventually to join another alliance at the proper time. This is the central principle of relevance to the American player.

The United States is seldom strong enough to effectively play the "balancer". But it can reap many benefits by entering into alliances of short duration rather than those intended for prolonged validity. This will signal that the American player is open to alliance with any major power, gain the aid of allies, and avoid extended entanglements. In addition, if the United States is to be manipulated by its allies, it will not be for long. By avoiding alliances in general while negotiating with a view toward joining one that can offer the most, then signing a treaty of short duration, the American player significantly increases the probability that any agreed-to treaty of alliance will be largely on his own terms.

For *PAX BRITANNICA* players, war is a political phenomenon that can result in massive territorial and economic gains, loss of territory and investments, or the complete destruction of the game's "world order". In the early stages of the game, war is improbable as there are so many accessible areas open to investment and expansion that there are few "flash points" worth a confrontation. In short, there's enough of the world for everybody. Only when the "empty spaces", as Morgenthau called them, are filled and the means of investment and expansion are greater than the opportunities does war become a real danger to major powers. In addition, by the later game turns the players have built many naval units, seen South American and Balkan wars, witnessed domestic agitation by irredentist and expansionist elements within Europe and Japan, and maybe even fought a war or two. Consequently, the European Tensions Index is often high and the "Great War" looms on the horizon.

Throughout the game, the American player must strenuously avoid war with the other major powers. Military units are vital components of power, but when players turn them against each other, imperial futures are gambled. Going to war against a European major power, even with the help of a powerful ally can be suicide for the United States. Even declaring war against a weak major power can result in the loss of carefully accumulated military units for debatable gains. It is best for the American player if he leaves war to the less wise.

Conclusions

Despite entering the game with negligible power and only one overseas possession, the United States goes into 1916 with a potent army and navy and possessions on three continents. A canal allows the navy to quickly shift from ocean to ocean, and in most of its own hemisphere what the United States does not control outright it has significant investment in. It is an active participant in the world order. By the early 20th century, the United States is respected as much for its prudently fluid and activist foreign policy as for its far-flung and amply defended empire.

This is the goal of the American player. He must increase the assets at his disposal and use them to further his standing in the global community. Though his efforts concentrate initially on the New World, they carry him to China and the rest of East Asia.

In the seven-player game, it is extremely difficult for the United States to amass more victory points than Great Britain, France or Germany/Austria. All enjoy generous colonial office incomes, and Britain starts the game with an already sizeable empire. Early access to the "empty spaces" of Africa and Asia allow them to expand and invest quickly and profitably.

But the United States should be able to surpass Italy, Russia and Japan. These countries share

relatively low, and sometimes downright poor, colonial office incomes. Italy is perennially weak and easily tempted in the race to divide Africa. Japan poses the greatest problem of the three, for it shares with the United States a need for substantial Asiatic investments and colonies. In fact, whereas Asia is the site of the American empire's completion, it is the core of *dai-Nippon's* future. If the United States has any natural antagonist, it is Japan. But because Japan's merchant fleets multiply less rapidly than those of the United States, the American player may be able to preempt much of Japan's planned investment and expansion.

The goal of the American player is to finish ahead of Japan, Russia and Italy, with such a gap in victory points between the United States and its closest competitor that it can finish with a rank no lower than fourth. This increases the chances that because of the players' relative skills or fate either Britain, France or Germany/AH finishes marginally lower than the United States, raising the American finishing rank to third.

PAX BRITANNICA is unusual in that a player should be gratified to finish third or fourth out of seven. But when playing the United States, one's concern lies not in building the "Empire to End All Empires", but in making something out of nothing. In the end, the American player should have something indeed, including mastery of his own hemisphere.



Long Haul . . . Cont'd from Page 31

In almost every game of *THE RUSSIAN CAMPAIGN*, the Soviet player will be able to push his opponent's forces steadily westward, drawing ever close to the Rumanian oilfield, Berlin, and victory. A player who opts for the protracted game has to accept this. He cannot try to fight his opponent to a standstill in the heart of the Russian *rodina*. What he can do is limit the Soviet advance so that May/June 1945 arrives before the Red Army can reach striking distance of Berlin.

The Axis player's conduct must be basically reactive, but not passive. If the Soviet player over-extends himself and leaves a flank dangling or advances in disarray, the Axis player can and should counterattack if he feels that there is minimum risk in doing so.

Though he does not enjoy the initiative from 1943, the Axis player faces a difficult and frequently fascinating challenge during the defensive phase of the game. He must preserve as much of his order of battle as possible, remembering that this is but the means to the end. His objective must be to retain possession of Berlin, at all costs, at the end of the game.

CONCLUSION

In *RUSSIAN CAMPAIGN*, the Axis player faces a monumental challenge in vanquishing the Soviet Union. It is thus more realistic to strive for a more modest and attainable goal, control of Berlin at the end of the May/June 1945 turn. He can be afflicted with a terrible strategic situation in the final turns of the game, but so long as he holds Berlin he has won *THE RUSSIAN CAMPAIGN*—though certainly losing World War II on the Eastern Front.

Compared to many other games, *THE RUSSIAN CAMPAIGN* is based on a very simple system. But such simplicity does not prevent it from dictating that the successful player understand subtle concepts. On the contrary, he must have a firm grasp of military power as it relates to the game, and then apply this understanding to formulating a strategy that keeps in mind exactly what is needed to win. The player who accomplishes this accomplishes more than his German historical counterparts.



HOW YA GONNA KEEP 'EM DOWN ON THE FARM?

City-Building Strategies for CIVILIZATION

By Albert Parker

The following comes to us by way of the 'zine "Politesse", who in turn picked up this fine article from "The Washington Gamer". The sidebar, "Economics of Trading", originally appeared in "The Washington Gamer". Both articles appear with the kind permission of the editors of both those amateur publications.

A recent game of *CIVILIZATION* served as a simulation to confirm the findings of the noted German archeologist, Kurt Schlange, about the growth of ancient cities around the eastern Mediterranean and their effect on early civilizations. In that five-player game, Egypt began developing cities as soon as possible and permanently stunted his civilization. This set me to thinking about the optimal point in the game at which to start converting population into cities.

To review, each player, attempting to control the destiny of an early Mediterranean civilization, begins with one counter on the board which represents a minimal rural population of farmers and herders. This population can double every turn and expand into new regions, where it can double again. Six such counters can be converted into a city, which can begin trading for valuable commodities and piling up the points (through trade and taxation) that permit the purchase of "Civilization" cards, which are ultimately required for victory in the game. Each city must be supported by at least two rural population units.

This description is oversimplified somewhat, but includes the basic assumptions on which this analysis is based. There are circumstances in which the non-urban population would not be able to double, but I assume here that the player is skillful enough to avoid them (except for Crete, who is constrained by geography).

Let us consider first the extreme strategy (close to that followed by the Egyptian player I observed) of forming cities as quickly as possible. In the first turn, the single population counter would double to two. In the next turn, these would double again to four. Following the possible exponential curve (in which population equals 2^{n-1} , where "n" is the number of completed turns) would yield the usual progression of 2, 4, 8, 16, 32. The premature urbanizer would "trade in" six counters on the third turn to form a city. He would then be back to a population of two (just enough to support his city) and would require two turns to get back to eight, at which point he would form his second city with an insufficient rural population of two. However, in the next turn, his population would double to four, just enough to support two cities. However, he would now have to wait until his population increased to 16 before he could form a third city; otherwise, he would lose one of the cities for lack of a sufficient rural base to grow food for it. Table 1 shows the process by which the premature urbanizer would reach the maximum of nine cities.

Table 1: City Formation—Early Urbanization Strategy

| Turn | Population | Converted To Cities | Remaining Population | New Cities | Total Cities |
|------|------------|---------------------|----------------------|------------|--------------|
| 1 | 2 | 0 | 2 | 0 | 0 |
| 2 | 4 | 0 | 4 | 0 | 0 |
| 3 | 8 | 6 | 2 | 1 | 1 |
| 4 | 4 | 0 | 4 | 0 | 1 |
| 5 | 8 | 6 | 2 | 1 | 2 |
| 6 | 4 | 0 | 4 | 0 | 2 |
| 7 | 8 | 0 | 8 | 0 | 2 |
| 8 | 16 | 6 | 10 | 1 | 3 |
| 9 | 20 | 12 | 8 | 2 | 5 |
| 10 | 16 | 6 | 10 | 1 | 6 |
| 11 | 20 | 12 | 8 | 2 | 8 |
| 12 | 16 | 6 | 10 | 1 | 9 |

Suppose a civilization develops cities just a little later? If a player waited until he had a rural population of 16 before he formed his first city, he would do so on Turn 4 and still have ten population counters, which would double to 20 on Turn 5. If he converted only six into a second city, he would have 14 to double to 28 on Turn 6; converting 12 into his third and fourth cities would leave 16 counters to double to 32 on Turn 7. If this player continued to form two cities per turn, he would get to his ninth city on Turn 9.

As a third case, consider the late urbanizer. He lets his population continue to double through five turns, at which point it has reached 32 counters. He can't double again to 64 because the rules put ceilings on the number of counters each civilization can have in play (e.g., 55 with seven players, 47 with five players). Therefore, he forms two cities on Turn 5, reducing

his population to 20. Then on Turn 6 he doubles his folk to 40 and forms three more cities, leaving a population of 22. By judicious expenditures from his treasury, he can arrange to add 18 rural counters each turn thereafter, which he immediately converts into three cities. Although he started later than the moderate urbanizer, he would be able to form his ninth city on Turn 8.

The premature urbanizer would be the first to have an opportunity to draw trade cards, but early in the game he will have no one to trade with. In the long run, moreover, he would be outstripped by either the moderate or late city-builder. Table 2 shows the number of cities each of our three prototypical civilizations would have each turn and the trade cards which could be drawn.

Table 2: Trade Cards Drawn under Three Urbanization Strategies

| Turn | Early Urbanization | Intermediate Urbanization | Late Urbanization |
|------|--------------------|---------------------------|-------------------|
| 3 | 1 | 0 | 0 |
| 4 | 1 | 1 | 0 |
| 5 | 2 | 2 | 2 |
| 6 | 2 | 4 | 5 |
| 7 | 2 | 6 | 8 |
| 8 | 3 | 8 | 9 |
| 9 | 5 | 9 | 9 |
| 10 | 6 | 9 | 9 |
| 11 | 8 | 9 | 9 |
| 12 | 9 | 9 | 9 |

From the number of trade cards, it is evident that the early urbanizer has hurt himself badly. Losing the exponential effects of doubling his rural population over a prolonged period, he forms his cities slowly and painfully. The other two cultures start more slowly, but then experience an explosive growth of their urban areas. The ultimate differences among the three strategies become apparent if we add up the values of all the trade cards each player could potentially draw in 12 turns; the figures are in Table 3.

Table 3: Total Value of Trade Cards under Three Urbanization Strategies

| Trade Card Value | Early Urban Number | Early Urban Total Value | Intermediate Urban Number | Intermediate Urban Total Value | Late Urban Number | Late Urban Total Value |
|------------------|--------------------|-------------------------|---------------------------|--------------------------------|-------------------|------------------------|
| 1 | 10 | 10 | 9 | 9 | 8 | 8 |
| 2 | 8 | 16 | 8 | 16 | 8 | 16 |
| 3 | 5 | 15 | 7 | 21 | 7 | 21 |
| 4 | 4 | 16 | 7 | 28 | 7 | 28 |
| 5 | 3 | 15 | 6 | 30 | 7 | 35 |
| 6 | 3 | 18 | 6 | 36 | 6 | 36 |
| 7 | 2 | 14 | 5 | 35 | 6 | 42 |
| 8 | 2 | 16 | 5 | 40 | 6 | 48 |
| 9 | 1 | 9 | 4 | 36 | 5 | 45 |
| Total | | 129 | | 251 | | 279 |

Of course, these totals do not take into account several important factors. Even without the supplemental trade cards, the three lowest-valued trade cards are split between two different commodities. One player can be luckier than another in drawing mostly one kind, which enables him to compound their value even without favorable trades. Favorable trades themselves can enormously increase the value of trade cards drawn. Then there are the disasters, wars with other players, and similar events which can wipe out cities or reduce the rural populations. Nevertheless, it is clear that the *potential* of a late urbanization strategy is much greater where it really counts—in drawing trade cards and piling up enough points to buy Civilization cards. Civilization cards can also be bought, wholly or in part, with taxation revenue, which in turn is based on the number of cities. Here too the early urbanization strategy fails. Assuming that no cities are lost for any reason and that the Coinage card is not used to increase or decrease taxation, the premature urbanizer would collect a total of 76 counters worth of taxes from his cities in the first 13 turns. In contrast, the intermediate urbanizer would collect 114 and the late urbanizer, 120.

The Economics of Trading

Trade cards held singly have values from "1" to "9", as printed on their face. Multiple cards of the same commodities, however, increase the value not linearly (that is, as a simple multiple of their value) but rather *exponentially*, varying as the *square* of the number held. Expressed as an equation, the total value (T_n) of "n" cards of the same commodity with a simple value of "v" is:

$$T_n = n^2 v$$

The total value of cards of various simple values is listed in the table below:

Table A: Card Values by Number Held

| Commodity | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------------|---|----|----|-----|-----|-----|-----|-----|-----|
| Hides/Ochre | 1 | 4 | 9 | 16 | 25 | 36 | 49 | | |
| Iron/Papyrus | 2 | 8 | 18 | 32 | 50 | | | | |
| Salt/Timber | 3 | 12 | 27 | 48 | 75 | 108 | 147 | 192 | 243 |
| Grain/Oil | 4 | 16 | 36 | 64 | 100 | 144 | 196 | 256 | |
| Cloth/Wine | 5 | 20 | 45 | 80 | 125 | 180 | 245 | | |
| Bronze/Silver | 6 | 24 | 54 | 96 | 150 | 216 | | | |
| Spices/Resin | 7 | 28 | 63 | 112 | 175 | | | | |
| Gems/Dye | 8 | 32 | 72 | 128 | | | | | |
| Gold/Ivory | 9 | 36 | 81 | | | | | | |

Careful examination of this table indicates that even low-value commodities can be quite valuable in large numbers. Three humble ochre cards are worth as much as one of the gold cards that players see only late in the game. They are also worth as much as one grain and one cloth card, even though grain and cloth are individually worth several times as much as ochre. This table also gives a clue about trading. With trades limited to three cards at a time, a player could profitably give up a grain, a cloth and a bronze (which have a total value of "15") for three iron or papyrus (which have a value of "18"). A cloth, bronze and spice for three iron or papyrus would be an "even" deal.

Often, however, a player will have two or more of a certain commodity in his hand and, given the exponential increase in value from adding cards, he will be trading to get more of one of the commodities he already holds. Therefore, it is "marginal value" which is most important in trading: how much value is gained or lost from obtaining one more card of some commodity or trading away the highest-numbered card of a commodity. Our second table lists these marginal values. The numbers in each column show how many points a player gains by holding the second, third, etc. card of each commodity.

Table B: Marginal Values of Trade Cards

| Commodity | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Hides/Ochre | 1 | 3 | 5 | 7 | 9 | 11 | 13 | | |
| Iron/Papyrus | 2 | 6 | 10 | 14 | 18 | | | | |
| Salt/Timber | 3 | 9 | 15 | 21 | 27 | 33 | 39 | 45 | 51 |
| Grain/Oil | 4 | 12 | 20 | 28 | 36 | 44 | 52 | 60 | |
| Cloth/Wine | 5 | 15 | 25 | 35 | 45 | 55 | 65 | | |
| Bronze/Silver | 6 | 18 | 30 | 42 | 54 | 66 | | | |
| Spices/Resin | 7 | 21 | 35 | 49 | 63 | | | | |
| Gems/Dye | 8 | 24 | 40 | 56 | | | | | |
| Gold/Ivory | 9 | 27 | 45 | | | | | | |

This table should make clearer what are profitable one-for-one trades. For instance, you would gain nothing by giving up one of your five ochre cards to get a second salt card. On the other hand, it would be slightly advantageous to trade away one of your five iron cards to add a grain card to the two you already have. Sometimes, however, moving up in number is not worth the loss in value; you would be foolish to give up one of your three bronze cards (marginal value of 30) to get a fourth oil card (marginal value of 28). These marginal values can be combined to evaluate a trade involving two or three cards of the same commodity as well. For instance, if you have a possible trade partner who will give you two cloth cards and an iron for your three bronze, and you already have two cloth cards, the transaction balances out for you as follows:

| Giving Up: | Gaining: |
|---------------|---------------|
| 1st Bronze—6 | 3rd Cloth—25 |
| 2nd Bronze—18 | 4th Cloth—35 |
| 3rd Bronze—30 | 1st Iron—2 |
| Total Loss—54 | Total Gain—62 |

Clearly, this is a profitable trade for you, although not overwhelmingly so. At the same time, it could be tremendously profitable for your

partner/opponent. Suppose he only has two cloth and one iron card, but also has just one bronze. His balance sheet would look like this:

| Giving Up: | Gaining: |
|---------------|---------------|
| 1st Cloth—5 | 2nd Bronze—18 |
| 2nd Cloth—15 | 3rd Bronze—30 |
| 1st Iron—2 | 4th Bronze—42 |
| Total Loss—22 | Total Gain—90 |

There are some peculiarities in single-card trading. Looking along the diagonals in Table B above, it is a good deal to give up your fourth hides to get a third papyrus card, but it is not smart to give up that third papyrus to get a second timber. These differences become progressively larger as cards become more valuable. "Trading up" from your second salt to your third iron gains a value of only "1", but giving up your second ivory to get a third dye nets you a value of "13"! The diagonals also show that it is rarely advantageous to give up a card to get the same number of cards at the next higher level. For instance, if you have four grain and two cloth, you would lose by having three of each—your fourth grain (marginal value of 28) is worth more than your third cloth (marginal value of 25). *Never* give up a second card to get a commodity you do not have unless what you are getting has a simple value at least two higher than the simple value of what you are trading away.

The third table shows the marginal values of cards considered two at a time. This table can be used to evaluate two-for-two trades or, in comparison with Table B, two-for-one trades. Thus, you should give up your second wine card (marginal value of 15) for a second and third iron card (marginal value of 16).

Table C: Marginal Values of Pairs of Trade Cards

| Commodity | 1st 2nd | 2nd 3rd | 3rd 4th | 4th 5th | 5th 6th | 6th 7th | 7th 8th | 8th 9th |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Hides/Ochre | 4 | 8 | 12 | 16 | 20 | 24 | | |
| Iron/Papyrus | 8 | 16 | 24 | 32 | | | | |
| Salt/Timber | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 |
| Grain/Oil | 16 | 32 | 48 | 64 | 80 | 96 | 112 | |
| Cloth/Wine | 20 | 40 | 60 | 80 | 100 | 120 | | |
| Bronze/Silver | 24 | 48 | 72 | 96 | 120 | | | |
| Spices/Resin | 28 | 56 | 84 | 112 | | | | |
| Gems/Dye | 32 | 64 | 96 | | | | | |
| Gold/Ivory | 36 | 72 | | | | | | |

Not many players will want to or be able to memorize these tables; and even if your fellow players let you bring them to the game, you probably will not have time to consult them during trading sessions anyway. If you can get away with it, you may be able to glance at them while other players are making their moves, and so might be able to map out some strategies, deciding what you want and what you can afford to give up to get it. If that is not practical, keep in mind the following rules, which are derived from the tables above:

- 1) Always give up a solitary card of any commodity to get a third card of a commodity you already have two of.
- 2) Do not give up a second card for one card of a commodity you do not already have unless the face value of what you are getting is at least three times the face value of what you are giving up.
- 3) Give up a second card of a commodity to get a third card of another with a simple value of "1" less if what you are giving up has a value of at least "5" (cloth or wine).
- 4) If you have two more of one commodity than of another of different value, do not trade to get equal numbers of each if the difference in their simple values is "1", but do make such a trade if they differ in value by "2" or more.
- 5) If you have two different commodities of equal value, always trade to get more of one and fewer of the other.

These rules do not take into account two other factors in trading: side payments and storing grain. You may decide it is worthwhile to make a trade which is disadvantageous from an economic standpoint in order to influence another player in some other facet of the game (for instance, to pay him off for acting as a friendly nominee in a Civil War or to bribe him not to attack your on-board empire). You may also prefer to hold grain to mitigate a potential famine even if you are offered advantageous deals for it. The tables in this piece will permit you to at least assess the costs of these non-economic decisions.



A LITTLE HELP FROM FRIENDS

Giving Suckers an Even Break in MAGIC REALM

By Michael Anchors



Players in *MAGIC REALM* quickly learn that teaming up with other characters is the best insurance against being eaten by hungry monsters. The stronger, armored members of the team can lure monsters onto their shields, while lighter, more vulnerable members can take the critters from behind. This strategy was illustrated in Richard Hamblen's article, "Magical Mystery Tour" (Vol. 16, No. 4). Amazon and Swordsman mastered a gaggle of goblins that would have gobbled either character fighting solo.

Teaming up confers other advantages, too. By writing the "follow" orders, characters can share the Special Advantages of their companions. In the Swordsman-Amazon team, Swordsman could move an extra Move Phase by "following" the Amazon; or the pair can choose when to execute their move without having their Attention counter picked, when Amazon follows Swordsman.

Table 1 lists the Special Advantages that can be shared. Special Advantages not listed in Table 1 *cannot* be shared. For instance, players cannot use Dwarf's "Short Legs" to rest two asterisks in a Rest Phase. Note that the Pilgrim, Witch, Black Knight and Witch King have no Special Advantages that can be shared. Avalon Hill has also ruled that:

1. Dwarf can execute at most one extra Sunlight Phase per day, by following characters or using a treasure.
2. No one can "follow" or spy on the Witch's familiar.
3. A follower can learn what another character learns through Magic Sight only if he is entitled to use Magic Sight himself.
4. Peace with Nature does not extend to characters "following" Druid; they trigger monsters normally.

A player must be *careful* in choosing characters to travel with. The best travel mates are ones which can help the player achieve his Victory Requirements; but, remember, traveling companions harbor hopes of winning the game themselves. Choose mates who don't threaten you. Woods Girl may find the Elf amiable enough at the Inn, while both are penniless; but will chivalry stand in Elf's way when the Girl finds a precious treasure on the road? No, my friends. He will quietly ready his bow during daylight. In the evening, Woods Girl can't escape. Elf is too fast, and Elf's longer bow will hit before hers. Elf comes away with Wood Girl's notoriety, gold and treasure.

Table 2 shows which characters can pair safely at the beginning of the game. There are two ways in which a pair can be "safe". Characters are safe from each other if both characters have a fair chance to kill the other in combat. Pairs safe by "mutual threat" are marked with a  in the table. Even if one character is vulnerable and the other is not, the pair can co-exist if the vulnerable partner has a certain escape. Such pairs are marked . In other cases in the table, pairing is unsafe because one partner can block the other's escape and deal a mortal blow with little risk to himself. For these pairs, the dominant character is marked in the space.

This table assumes that a character wishing to do away with his companion will ready his weapon or attack spell during Daylight. Since activities are recorded secretly, a player cannot anticipate when his companion will do so. Magic characters are assumed to record their best available attack spells. Characters with Type II Magic chits record "Stones
















































































































































































































































TABLE 1:

Special Advantages that can be shared.

| | |
|--------------|--|
| Magician | Magical Paraphernalia: gets extra Alert phase |
| Swordsman | Clever: chooses when written move is executed during Move phase |
| Woods Girl | Tracking Skills: roll one die for all Search, Hide, etc. rolls that take place in Woods |
| Elf | Elusiveness: gets extra Hide phase |
| Druid | Concealment: roll one die for all Hide rolls |
| Wizard | Experience: can move along all secret passages and hidden paths without having to search for them (followers may cross them off their lists) |
| Amazon | Stamina: gets extra Move phase |
| Captain | Reputation: when in dwelling, gets extra phase to use in that dwelling |
| Berserker | Robust: gets extra Rest phase |
| Dwarf | Cave Knowledge: roll one die for all Search, Hide, etc. rolls that take place in Cave Clearing |
| White Knight | Health: gets extra Rest phase |

TABLE 2:

Safe Pairs in MAGIC REALM.

| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

vulnerable. In the case of "Mist", the target's possessions are out of reach of the spell caster because they are mist-ified with the target. In the case of "Transform", the target may carry his possessions away with him. Even a frog can carry gold; it has negligible weight! The "Mist" or "Transform" caster can't get his target's notoriety until he kills him. It is tough enough to kill a squirrel before it runs away to a clearing the caster can't reach. The little buggers don't need to follow the roadways.

Characters with Type V spells could use "Curse" or "Power of the Pit", but these are unreliable in a tense situation. Would the threat of "Sneak" dissuade the Berserker from bisecting Witch's cranium? "Broomstick" is a much more useful spell. Its owner should cast the spell on himself in advance, in a deserted clearing. Later, when trouble threatens, playing a light Move counter to run away suffices to sweep the spellcaster out of the clearing—literally. The table does take "Broomstick" into consideration.

Remember, I said Table 2 applies to the first turn of the game. As soon as characters pick up treas-

Fly"; those with Type IV record "Fiery Blast" and, if possible, "Lightning Bolt".

The table does not consider "Melt into Mist" or "Transform", because the target is not killed. Indeed, the spell is unavailable to its owner until the target is killed, leaving the spellcaster horribly



OUTLET



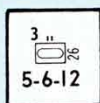
When in Baltimore—the birth place of wargaming—be sure to drop by the new game shop in town. **Games 'N' Toys Galore** is the official outlet for the entire line of Monarch-Avalon products. Here you will find the games of Avalon Hill, Victory Games, the Sports Illustrated line, Microcomputer Games discs and cassettes. Our new releases are premiered in the Baltimore area here, and you can find whatever you need for your gaming pleasure—parts for all games in print, issues of *The GENERAL* and *HEROES* (back issues as well), Gamers' Guides, the latest Team Charts and Players Cards. If you need something from Avalon Hill, this is the place to find it quickly.

Games 'N' Toys Galore is conveniently located near the Baltimore beltway (see the map); ample parking is available. You will be amazed at the terrific prices and special values. Major credit cards are accepted, as well as personal checks with appropriate identification.

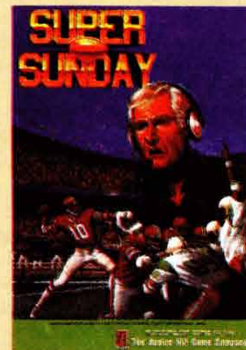
GAMES 'N' TOYS GALORE
1756 East Joppa Road
Baltimore, Maryland 21234
Phone: (301) 668-8766

Store Hours:

| | |
|-----------|---------------------------|
| Mon-Tues | - 9:30 am through 7 pm |
| Wed | - 11 am through 7 pm |
| Thurs-Fri | - 9:30 am through 9 pm |
| Sat | - 9:30 am through 5:30 pm |
| Sun | - 1:30 pm through 5:30 pm |



IF IT WASN'T SO GREAT WE WOULDN'T CALL IT SUPER!



Super Sunday gives you the best Pro Football teams of all time, computer analyzed to perform with proper guidance, just as they did in real life. Your brilliant play calling is re-enacted on screen by all 22 players. The additional **Champions, 1985 season** as well as the **General Manager's Disk** make this a must for all football fanatics.

For Commodore 64/128, IBM PC, PCjr and 100% compatibles. Color Graphics Board required.



| | |
|------------------|-----------|
| Super Sunday |\$35 |
| G.M. Disk |\$30 |
| Champion Disk |\$20 |
| 1985 Season Disk |\$20 |

Available at leading Computer, Software, Toy, Game and Hobby shops, or for order information call Toll Free: 1(800)638-9292. Ask for Operator S

microcomputer games DIVISION



The Avalon Hill Game Company

A MONARCH AVALON INC. COMPANY
4517 Harford Road • Baltimore, MD 21214

OPONENTS WANTED

Pbm opponent wanted for TRC. Honor system only. I play Russians. Rated 1200 Area. All letters answered. Please contact: Dudley Kidd, 4611 Governors Dr., #603, Huntsville, AL 35805, (205) 721-1511.

Ftf wanted SL-ASL, 3R, SST, others possible. Experienced 28 year old. Matt Holt, Rt. 1, Box 162-A, Pansey, AL 36370, (205) 899-8615.

ASL playtest group forming in the East Valley area! Any interested player will be enthusiastically welcomed! Pierce Ostrander, 265 N. Gilbert Rd., #2037, Mesa, AZ 85203, (602) 827-7380.

Playtesters wanted for SL scenarios: SL, COI/COD, GI, ASL and DASL levels. Write today to: On All Fronts, P.O. Box 265, Marshall, AR 72650.

SL players wanted for all levels—SL thru ASL. Eight scenarios in our June issue—\$12.95 for year's subscription. On All Fronts, P.O. Box 265, Marshall, AR 72650.

AOC, GOA, PL, PAA, 3R, W&P will pbm or ftf. Long campaign games always finish to the last man. I'll try most any game. I'm on the A.R.E.A./Avg.+. Chris O'Rourke, 831 S. Second St., Apt. B, Alhambra, CA 91801, (818) 308-1715.

New in Inland Empire area. 25-year old wants ftf in 3R, ASL, TRC, VITP. Will try others. Sean Penn, PSC Box 43, Norton AFB, CA 92409, (714) 885-5052.

Opponent wanted for PL ftf optional and experimental. Rules also VITP, LW, 3R and AOC. Alan Flint, 3724 Brunswick Ct., So. San Francisco, CA 94080, (415) 878-5258.

Newly Area rated 1200 will play a rated or non-rated game of 3R. Pbm or ftf. Mike Burke, P.O. Box 24781, San Jose, CA 95154, (408) 371-8576.

Opinions Wanted—What is the T.Q.E. of a "Standard" Rifle Co. (German, US, etc.) using SL/ASL counters? Tim DuPertuis, 2020 Humboldt St., Santa Rosa, CA 95404, (707) 528-0495.

Pbm teaching opponent wanted for AZ, PAA, TRC and Panzer Command. Also average player wishes pbm Chess opponent. Marcel Carboneau, 240 Iron Dr., Apt. 17, Vista, CA 92083.

3R players wanted for ftf games of 3R. Interested mainly in multi-player campaign games. All inquiries welcomed. Leonard Krause, 20711 Loyaltown Drive, Walnut, CA 91789, (714) 595-7094.

Adult gamer seeks pbm for PL or PB. Will provide quick turnaround. Wish to use honor system. Any Fairfield/New Haven clubs? Paul Anderson, 21 Wesley Dr., Trumbull, CT 06611, (203) 261-9798.

Experienced gamer seeks ftf opponents for UF, MR and DH. Also organizing multi-player TLD. David Neidigh, 102 Boxwood Rd., Middletown, DE 19709, (302) 378-9188.

Fly the Friendly Skies of Nam. All you hot dogs sign for a tour on this Flight Leader Campaign. Jaime Alfaro, PSC Box 1693, APO Miami, FL 34002.

Wanted: opponent for NAB, OR and WAT; ftf or pbm. Hollywood FL Area Joe. Joe Delillo, 1521 Golfview Dr, W. Pembroke Pines, FL 33026, (305) 431-5766.

Area 1500 (Prov) wants rated pbm for PB, TRC and WS&IM. Will ftf many others. All letters answered. Ed Leland, 2475 Spring Road, #N6, Smyrna, GA 30080, (404) 436-7705.

Rommel (Area 1500+AAA) will take on the British challenger in PAA, Area pbm only. Also BB and PL. Jeff Nelson, HC 62, Box 1450, Council, ID 83612, (208) 253-6052.

Average adult gamer looking for friendly ftf play. I have many games; will play most anything. Gary Christensen, 158 Birchwood Rd., Carpentersville, IL 60110, (312) 426-6596.

Experienced, rated pbm player seeks allied opponents (pbm-fff) TRC, GOA; (fff) 3R. Send opening set-up. All letters answered promptly. Robert Spontak, 4859 S. Honore, Chicago, IL 60609, (312) 847-2129.

35-year old, (unproven Area rated 1200), beginning to average player seeks "live" adult gamer for: SL, PB, PL, AIW, FR, STAL and DIP. Mr. Leslie Boston, 326 E. Adams, Apt. #1, Havana, IL 62644, (309) 543-2103.

Ftf opponents in Lafayette area, most historical games. Experienced and flexible, will travel. Carl Schwamberger, 3824 S. CO. Rd. 25 E., Lafayette, IN 47905, (317) 474-6718.

Wanted: New Orleans area ASL opponents for ftf play. ASL'ers, show yourselves! Craig A. Champagne, 237 Clara Dr., Slidell, LA 70460, 641-3290.

Adult Area (Prov) seeks pbm opponents for TRC, also 3R, (but need a system). Rob Costelloe, 118 Golden Pheasant, Slidell, LA 70461.

DC—Baltimore area players wanted for Origins of World War II. Steven Shore, 8796 Cloudleap Court, #14, Columbia, MD 21045, (301) 992-5482.

Veteran SL looking for opponents in the greater Spring Field area for ASL, DASL, SOF and also UF, BANZ. Vic Provost, 54 Edson Ct., Chicopee, MA 01020, 593-5849.

Real-life dove seeks real-life hawks to shoot down in Area pbm AK, BB'81, TRC, WAT. Age 35, reliable. Steve Harvester, P.O. Box 33, W. Brookfield, MA 01585, (617) 867-3667.

Would like opponent for ASL, SUB or RW at the intermediate or advanced level. Paul Nordquist, 340 First St., #304, Rochester, ME 48063, (313) 652-9023.

Experienced gamer looking for West Michigan area ASL opponents for ftf play. David Stephenson, 2741 Riley, SW, Wyoming, MI 49509, (616) 531-4453.

Must be some gamers in Albert Lea area? Ftf TAC, DD, TRC, PB, BL or will learn yours. Jim Cameron, 308 E. 7th St., Albert Lea, MN 56007, (507) 373-1285.

Opponents wanted in the Twin Cities area for ASL. Daniel R. Schulz, 1229 W. 12th Ave., Shakopee, MN 55379, 445-4163.

Area rated 1500 (Prov) seeks rated pbm; AF, AOC, BIS, FP, LW, SUB, 3R, TR need system; all letters answered. Chandler Braswell, 131 Pemberton Dr., Pearl, MS 39208, (601) 939-4730.

Average adult seeking pbm TRC. Si-movement VITP, 3R (scenarios only). Ftf HW, FT, RF. Rated, unrated welcome. Tom Scarborough, 7517 Oxford, #3H, St. Louis, MO 63105, (314) 727-9829.

SL—ASL opponents sought for ftf in Scottsbluff, NE area. Pbm considered. Rob Webb, 1125 1/2 L Street, Gering, NE 69341, (308) 436-3358.

Pbm zine publisher and GM 10 years seeks players: CIV with free bonus, KM, beginners game DIP, DIP variant, all pbm. Information 39c. W.E.J. Hinton Jr., 20 Almont St., Nashua, NH 03060.

Jersey Wargamers meet first and third Fridays, first and third Sundays each month. For info: days Bob Wielgus, (717) 991-5135; evenings Bob Hahn, (201) 276-3553. Bob Hahn, 596 Brookside Place, Cranford, NJ 07016.

Adult (24) veteran of SL, COI, COD, GI seeks ftf opponent for ASL. Also loves TRC, CAE, FE, and others. Fred Geck, 44 Braeton Way, Freehold, NJ 07728, (201) 462-4493.

Looking for pbm HW and AF if possible. Have played for 3-years. Will answer all letters. Send SASE, please. William Lydich, 9 Emery Drive, Whitehouse Station, NJ 08889.

Adult, average gamer seeks opponent for Dune, Wizards, MR, WQ, and other sci-fi/fantasy games or mystery games. Jane Craig, 99A 3rd St., #2, Brooklyn, NY 11231, (718) 797-1861.

Seek adult pbm players to join AHKs, pbm MA, and join ftf boardgame and miniature club. Stuart J. Schoenberger, 430 Ocean Parkway, Suite 30, Brooklyn, NY 11218, (718) 826-2709.

Looking for friendly ftf RF in Buffalo area—weekends. John Wood, 72 Jerome Drive, Cheektowaga, NY 14227-2508, (716) 668-2352.

Verified Area 1200+ seeks opponents. Pbm PB, PL, COI, COD, AIW, will answer all letters. Will accept rated opponents only. Kevin Raznof, 330 Home St., #2, Elmira, NY 14904, (607) 733-0277.

Want to play multi-player CIV, TT, or DIP by mail? New zine (The King's Court) wants you! Send stamp for pbm systems and more information. Jason Russ, Stonehouse Rd., Somers, NY 10589, (914) 277-8543.

Blind ASL game. Send side choice (German or Russian) for information. Sean C. Turner, 110 Noel Ann Ct., Cary, NC 27511, (919) 481-0562.

Pbm W&P Campaign Game! Serious players only. Send top three country choices. ASL, AF, NAB, SON, W&P scenarios. Sean C. Turner, 110 Noel Ann Ct., Cary, NC 27511, (919) 481-0562.

Seeking ftf COI thru GI, UF, TB, Dune. Also anxious to learn 3R and ASL. Don't have either game (yet!). Chris Leach, Box 4 Roberson, MHE's, Newport, NC 28570, 223-3960.

Wargame Club meets Friday nights at 6:30. New members welcome. Falcon Hobbies, 2847 Whipple Ave., N.W., Canton, OH 44708, (216) 477-9904.

Desperate for opponents. Ftf or pbm, rated or non-rated. ASL, RF, 3R, HW, FT, Civil War or your game. Ron Myers, 2740 Lakeside Ave., Canton, OH 44708, (216) 453-7963.

Experienced adult (28) gamer seeking ftf opponents for UF, SL through ASL, FE in Columbus area. David W. Paul, 3434-A Wilson Woods Dr., Columbus, OH 43204, (614) 274-0371.

Area 1500 (Prov.) new to pbm seeking opponents: AK, TRC, PB, FE, FR, 3R, Frank Spisak, S.O.C.F. Box 45699, Lucasville, OH 45699.

Adult gamer wants reliable pbm BL opponents. Ftf 3R and CIV in Cleveland area. Am Area rated. WITP anyone? Jack Lanigan, 3567 Gridley Rd., Shaker Hts., OH 44122, (216) 752-0223.

"Gamer's Legion" pbm newsletter plays W&P, HW, MP, BowlBound. Send stamp for more info. Marcus Vogt, 145 Spring Valley Rd., Westerville, OH 43081, (614) 895-2231.

Warriors of the Roses. Boardgames, Monday and Friday nights. Featuring an ASL, AF Campaign game. Many AH game titles played. F. Scott Payne, 7625 S.W. 91st Ave., Portland, OR 97223, (503) 244-0660.

Pbm opponents wanted for ASL. Need to modify SL system for ASL. Beginners welcome. Steve Smith, 20400 S.W. Martinazzi, #69, Tualatin, OR 97062, (503) 692-9335.

Pbm KM; ftf many other games. Tom Bray, 119 S. 7th St., Allentown, PA 18101.

Join Penn-Jersey Gamers. Meet Lower Bucks County—Philadelphia, PA area. All games. Adults only. For info send SASE to: Jim Vroom, 2290 Galloway Rd., A-23, Bensalem, PA 19020.

Any Flight Leaders in Plum, Penn Hills, Monroeville area of Pittsburgh? Teen looking for ftf opponent(s) in basic and advanced game. Vincent Tuite, 246 Perry Street, Pittsburgh, PA 15239.

Looking for pbm systems for SON, DIP also want opponents for ADV GE and DD and other Civil War games. Kevin J. Crawford, 7129 Seaford Rd., Upper Darby, PA 19082, (215) 626-3766.

HDQ 1500+ seeks rated pbm PGG. I have good system for untried units. J. C. Lawson, 1515 Gist St., 4-W-5-13, Columbia, SC 29202.

Average 14-year old seeks teen-age wargamer. Not familiar with pbm but will learn. Will also learn new games. WSIM and FL. Kenneth E. Harker, 3202 Greenleaf Ct., Garland, TX 75042, (214) 495-1144.

AIW, LW, PB, PL, TRC and 3R. Mike Parks, 357 Audrey Ln., Houston, TX 77015, (713) 455-5795.

ODESSA Wargaming Assoc. Adult wargamers meet every Tuesday night. Have wide variety of games—can leave games set up. Steve Overton, 620 Belmont, Odessa, TX 79763, (915) 332-2767.

Looking for ftf opponents for ASL have Deluxe ASL system also—can leave games set up. Steve Overton, 620 Belmont, Odessa, TX 79763, (915) 332-2767.

Experienced gamer wants ftf opponents for SL, COI, COD, 3R, BB'81, PL, BR, GE. I am currently unable to travel beyond 50 miles. Mark Merrill, 949 S. Lillian, Apt. #209, Stephenville, TX 76401, (817) 968-2056.

Adult (36) 1200 (Prov) gamer seeks Area rated games in PL, PB, others considered. All letters answered. Any Rio Grande Valley gamers? Kenneth Oates, 316 Hidden Valley Dr., #27, Weslaco, TX 78596, (512) 968-7984.

Non-rated player seeks opponents in pbm of the following: KA, DEV, FP, UF, GSL, and GL—your choice. Kenneth Legg, 413 Algonquin Rd., Hampton, VA 23661, (804) 722-3181.

Veteran gamer wishes to be GM for FT, FL, SUB. Also desires pbm for VITP (using Simultaneous Movement), FE, FP and VG's Vietnam. Jeff Thomason, 2619 NE 4th Street, #112, Renton, WA 98056, 228-0331.

Ftf opponents wanted for fun or blood. 3R, BIS, AF, CAE, AOC, Flight Leader! I want to check out ASL. Will learn anything. Fred Dobrate, 12538 Dayton Ave., N. Seattle, WA 98133 (206) 367-1260.

Look no further for pbm. DIP! "The Handwritten" has openings in regular and spy DIP. For more info send SASE. Erik Van Rossum, P.O. Box 95155, Seattle, WA 98145-2155, (206) 633-2962.

Fox Valley Gamer's Club meets on the 2nd and 4th Saturday of each month. For information contact: Kerry Watson, 1625 W. Weiland, Appleton, WI 54914, (414) 731-5579.

Wanted: German player for pbm FE. Non-rated consider; myself very good player. Steven Nix, P.O. Box 84, Rhinelander, WI 54501, (715) 362-5416.

"A" Company seeks mature ftf opponents for SL, COI, COD. Smoke gets thick each Wednesday night. Bob Gorden, 7213 Braehille Road, Cheyenne, WY 82009, (307) 637-6027.

Any DIP players interested in a pbm DIP newsletter, please write to: Ian Krult, 3963 Oakwood St., Victoria B.C. Canada, U8N-3M9.

22-year old gamer wants pbm system for 3R, SL, COI, COD and GI. Also ftf for any gamers in Borden area. All letters answered. Brent Henry, CFB Borden, Base Supply, Borden, Ontario, Canada L0M 1C0.

Experienced gamer seeks pbm AZ (Gustav Line, Diadem, Shingle), AOC, STAL. Area rated 1350 approx. All letters answered. Any side. Mark Bayliss, "Quenta" 3 Hilltop, Chepstow, Gwent, Great Britain NP6 SBT.

Gamers in Germany, where are you? 2LT David M. Cross, HHB 2/8 FA, Box 375, APO NY 09177 or Bleidorn Housing Area, Bldg. 5090BQ Rm. 21, 8800 Ansbach, West Germany.

Does anyone play wargames up here? I will play almost any game, especially ASL, ftf only. It doesn't matter if you're German or American. Mike Smith, HHC, 543rd ASG, Box 513, Bremerhaven, W. Germany, APO NY 09069, (0471) 802155.

Any gamers in the Philippines? Willing to play or learn any game of AH or VG—you name it. All queries answered. Pablo Dulalia III, 136 Santo Domingo St., Quezon City, Philippines 3010, 712-4372.

Any wargamers in Israel? Desperately seeking! COI, RF, 3R, AIW and W&P. Guy Blachman, 39, Galei Tchelet St., Herzlia Pituach, Israel, 46640, (052) 77605.

The "Opponents Wanted" advertisements on this page are intended as a service to the readership of this periodical. Please print or type the ad copy. If the ad is not legible, it will not be printed. Too, no ad dealing with products of other manufacturers will be printed and any mention of such will be excised. Ads are accepted for a single printing only. Should the reader desire that a specific ad enjoy a multiple printing, a separate number of copies equal to the number of times the ad is to be run must be submitted—although only one total payment need be included to cover the printings. Due to the pressure of various deadlines, often advertisements submitted weeks before an issue appears will not be printed in that issue. Please be patient; such will be printed in the immediately following issue. Please do not specify a particular issue for an ad to appear; such requests cannot be honored.

THE QUESTION BOX

1830

4.0 May a player buy and sell the same share, or different shares of the same railroad, during a single player turn of a Stock Round?

A. Yes

10.0 If a railroad stock is valued in the Brown Zone and has shares for sale in both the Bank Pool and as Initial Offering, can all of the shares in both places be bought simultaneously?

A. No. Stock may be purchased from the Bank Pool or Initial Offering, but not from both in the same player turn of a Stock Round. The special buying rules for stock in the Brown Zone only apply to those shares available in the Bank Pool, not those remaining in the Initial Offering. Those shares may still only be bought one at a time.

10.0 If two different corporations have stock available for sale in the Bank Pool and both are valued in the Brown Zone, can one player buy up all the stock available for both?

A. No, you may buy stock in only one corporation per player turn.

19.0 If a title placed on the base hexagon of a corporation not yet operating has spaces for two tokens, can another railroad occupy one space with its token—leaving the second space free for the base corporation?

A. Yes.

19.0 Does the first sentence of the second paragraph mean that each railroad begins its first turn of operations by immediately playing a token on its base hex, thereby establishing a railroad and allowing track construction that turn?

A. Yes, precisely.

19.0 Does the token placed as a special feature of the D&H Private Company count as a corporation's one token placement that turn?

A. Yes, but remember that a railroad can still place a token on its base hexagon for free in its first turn of operation.

20.2 If all Diesels have been purchased and no 5 or 6 trains are available from the Bank, should the Bank be assumed to have an unlimited number of Diesels?

A. No. In this unlikely event, a corporation without a train cannot buy one from the Bank, so it just will not make any more money and its stock will continue to fall in value unless it can buy a train from another corporation.

20.2 If a railroad has no trains and no trains remain for sale in the bank (all "5", "6" and Diesel trains are already owned), is the railroad really doomed to fall in value because it may not pay dividends?

A. Yes.

21.0 If a railroad has no train but has the cash to buy one from the bank, may it instead purchase a train from another corporation (and perhaps even pay more than the bank's train would cost)?

A. Yes (yes).

21.0 May the president of a corporation sell a train to another corporation he is also president of, and then have the second railroad operate the train during the current Operating Round?

A. No. Trains are not sold, they are *bought*. There is a distinction. Any transfer of trains takes place during the purchaser's turn. The purchase of trains occurs in Step 5 of the operating sequence, after Step 3 when a railroad runs its trains. Therefore trains cannot be operated during the same Round they are acquired. If that were not so, all eight railroads could operate using the same single train.

23.1 Does the sale of a private company between two players count as a transaction for the purpose of placing the Priority Deal Card?

A. No. The Priority Deal Card pertains only to transactions passing through the Bank, not the transfers of private companies between players. Note however that all sales and purchases of stock take place between a player and the Bank.

24.0 When selling stock to assist a corporation in purchasing a train, must the shares be sold as a block or can they be sold one at a time, receiving the next lower share value each time?

A. Either way is proper, but the second procedure seems reasonable if you are trying to go bankrupt.

24.0 When a railroad has no trains but does have the cash to buy one from the bank, may the president add some of his personal funds to buy a train instead from another corporation?

A. No. The President's cash may only be used to raise necessary funds when buying a train from the bank.

Table 1 When exercising the D&H's special feature on behalf of either the NYC or the Erie (both of which must lay a tile on their base hexagon to establish their base station), may the player lay a city tile and a station using the D&H special feature as their first tile placement? If so, does the station established in the D&H hexagon count as the first free token which the railroad would normally have laid on its base station?

A. Yes. No, the token placed on the D&H is free, but another token must also be placed (free) on the NYC or Erie base hex, even if no tile is there. The first player to thereafter lay a tile on these base hexagons can orient the tile and token as they wish, since the NYC or Erie owner has passed the opportunity.

The following games are ranked by their reader-generated overall Value rating. Further aspects of reader response to our titles are indicated by the ratings in other categories. By breaking down a game's ratings into these individual categories, the gamer is able to discern for himself where the title's strengths and weaknesses lie in the qualities he values highly. Readers are reminded that the Game Length categories are measured in multiples of ten minutes (thus, a rating of "18" equates to three hours).

WARGAME RBG

| Title | Overall Value | Components | Complexity | Completeness of Rules | Playability | Authenticity | Shortest | Longest | Year | Sample Base |
|-----------|---------------|------------|------------|-----------------------|-------------|--------------|----------|---------|------|-------------|
| 1. ASL | 1.67 | 1.44 | 10 | 1.81 | 2.80 | 1.98 | — | — | 1985 | 133 |
| 2. RF | 2.00 | 2.78 | 5 | 4.15 | 2.56 | 2.36 | 15.54 | 89.64 | 1985 | 88 |
| 3. GI | 2.02 | 1.93 | 10 | 3.01 | 3.38 | 1.88 | 12.84 | 35.33 | 1982 | 264 |
| 4. COI | 2.06 | 1.95 | 9 | 3.29 | 3.13 | 1.99 | 11.61 | 29.27 | 1978 | 532 |
| 5. BV | 2.09 | 1.95 | 10 | — | 2.82 | 1.86 | 13.14 | 39.20 | 1985 | 95 |
| 6. 3R | 2.21 | 2.67 | 10 | 3.81 | 3.40 | 2.73 | 25.94 | 69.24 | 1981 | 273 |
| 7. COD | 2.23 | 1.97 | 10 | 3.12 | 3.08 | 1.85 | 12.15 | 30.20 | 1980 | 224 |
| 8. TRC | 2.29 | 2.53 | 4 | 2.52 | 2.12 | 3.11 | 17.44 | 37.74 | 1976 | 540 |
| 9. SL | 2.31 | 2.09 | 8 | 3.48 | 2.87 | 2.45 | 10.17 | 27.90 | 1977 | 680 |
| 10. UF | 2.42 | 2.26 | 4 | 2.57 | 1.31 | 2.84 | 4.84 | 13.05 | 1983 | 58 |
| 11. B-17 | 2.51 | 2.62 | 3 | 2.52 | 1.86 | 2.21 | 3.30 | 11.50 | 1983 | 87 |
| 12. WS&IM | 2.53 | 3.04 | 6 | 2.93 | 2.67 | 2.39 | 7.01 | 34.90 | 1975 | 464 |
| 13. FP | 2.57 | 3.10 | 4 | 3.12 | 2.91 | 2.87 | 5.42 | 16.81 | 1985 | 85 |
| 14. HW | 2.59 | 3.27 | 4 | 3.68 | 2.13 | 4.25 | 8.27 | 21.73 | 1984 | 63 |
| 15. W&P | 2.61 | 2.76 | 5 | 3.46 | 2.93 | 3.04 | 13.04 | 57.19 | 1980 | 374 |
| 16. BB'81 | 2.67 | 2.46 | 4 | 2.53 | 2.94 | 2.91 | 19.62 | 35.09 | 1981 | 277 |
| 17. TLD | 2.68 | 1.95 | 8 | 3.72 | 3.54 | 2.04 | 24.44 | 170.68 | 1980 | 119 |
| 18. VITP | 2.72 | 2.86 | 2 | 2.89 | 2.22 | 4.52 | 16.96 | 22.36 | 1977 | 420 |
| 19. CAE | 2.85 | 3.01 | 4 | 2.32 | 2.89 | 2.52 | 25.14 | 32.57 | 1976 | 252 |
| 20. SON | 2.92 | 3.03 | 10 | 3.72 | 4.09 | 1.92 | 29.50 | 81.78 | 1981 | 123 |
| 21. SOA | 2.97 | 2.79 | 3 | 2.73 | 2.41 | 3.88 | 18.22 | 22.57 | 1981 | 232 |
| 22. FE | 3.00 | 2.72 | 7 | 3.21 | 3.21 | 3.00 | 21.17 | 49.05 | 1980 | 345 |
| 23. FRED | 3.00 | 3.41 | 4 | 2.93 | 2.58 | 2.75 | 12.25 | 24.67 | 1983 | 58 |
| 24. SUB | 3.08 | 2.64 | 8 | 3.13 | 3.08 | 2.74 | 9.41 | 26.15 | 1978 | 281 |
| 25. CON | 3.12 | 3.64 | 7 | 3.08 | 2.52 | 3.52 | 25.8 | 49.1 | 1983 | 73 |
| 26. MD | 3.13 | 3.51 | 3 | 2.80 | 2.21 | 3.44 | 14.75 | 20.74 | 1964 | 395 |
| 27. AZ | 3.17 | 2.72 | 7 | 3.18 | 3.86 | 2.68 | 18.63 | 63.40 | 1978 | 292 |
| 28. PL | 3.19 | 2.94 | 7 | 3.31 | 3.13 | 3.50 | 9.49 | 25.80 | 1974 | 479 |
| 29. 1776 | 3.21 | 2.97 | 7 | 3.09 | 3.03 | 3.10 | 10.16 | 45.09 | 1974 | 373 |
| 30. FT | 3.23 | 3.12 | 10 | 3.22 | 3.67 | 3.16 | 24.51 | 57.39 | 1981 | 196 |
| 31. PK | 3.34 | 4.02 | 4 | 3.48 | 2.85 | 3.27 | 11.85 | 20.34 | 1983 | 59 |
| 32. PB | 3.35 | 3.08 | 6 | 3.73 | 2.90 | 3.94 | 10.35 | 23.07 | 1970 | 448 |
| 33. BIS | 3.45 | 2.96 | 6 | 3.43 | 3.25 | 3.06 | 12.41 | 26.35 | 1979 | 248 |
| 34. AAOC | 3.52 | 2.95 | 5 | 3.02 | 3.26 | 3.07 | 15.52 | 26.53 | 1978 | 239 |
| 35. FITW | 3.53 | 3.14 | 4 | 3.17 | 2.94 | 3.72 | 16.14 | 30.01 | 1981 | 100 |
| 36. CL | 3.54 | 3.35 | 5 | 3.15 | 3.33 | 3.79 | 12.53 | 25.53 | 1975 | 136 |
| 37. DL | 3.61 | 4.02 | 7 | 3.85 | 3.22 | 3.29 | 6.66 | 19.94 | 1981 | 120 |
| 38. GOA | 3.66 | 3.37 | 5 | 3.67 | 3.79 | 2.98 | 18.68 | 60.06 | 1981 | 297 |
| 39. WAS | 3.71 | 3.67 | 1 | 2.48 | 2.37 | 5.98 | 9.09 | 12.71 | 1976 | 396 |
| 40. GE | 3.72 | 3.12 | 6 | 4.64 | 4.41 | 2.84 | 13.25 | 57.13 | 1977 | 248 |
| 41. AF | 3.74 | 4.16 | 7 | 3.98 | 3.34 | 3.35 | 5.61 | 16.02 | 1980 | 192 |
| 42. AIW | 3.74 | 3.05 | 8 | 2.92 | 3.52 | 3.06 | 8.69 | 25.36 | 1977 | 308 |
| 43. LRT | 3.75 | 3.60 | 4 | 3.53 | 3.39 | 2.96 | 13.04 | 17.00 | 1982 | 56 |
| 44. TR | 3.80 | 3.76 | 3 | 3.33 | 3.60 | 3.70 | 9.51 | 25.79 | 1980 | 72 |
| 45. WAT | 3.83 | 4.17 | 2 | 2.95 | 2.64 | 5.00 | 17.08 | 23.13 | 1962 | 296 |
| 46. NP | 3.87 | 3.29 | 3 | 3.27 | 2.56 | 4.89 | 9.69 | 14.40 | 1978 | 159 |
| 47. AK | 3.92 | 4.38 | 2 | 3.30 | 2.48 | 5.09 | 14.49 | 19.13 | 1964 | 492 |
| 48. AL | 4.03 | 4.05 | 5 | 3.69 | 3.18 | 3.57 | 12.34 | 17.93 | 1974 | 217 |
| 49. TB | 4.06 | 3.53 | 7 | 3.48 | 4.47 | 2.50 | 11.28 | 32.50 | 1975 | 304 |
| 50. RW | 4.14 | 3.14 | 5 | 3.32 | 2.91 | 3.98 | 4.22 | 21.15 | 1973 | 311 |
| 51. JU | 4.17 | 3.20 | 6 | 3.61 | 3.83 | 3.22 | 16.01 | 36.66 | 1974 | 193 |
| 52. PAA | 4.17 | 4.24 | 5 | 3.79 | 3.99 | 3.70 | 15.51 | 25.24 | 1981 | 144 |
| 53. DD | 4.22 | 4.07 | 2 | 3.04 | 2.88 | 4.64 | 17.54 | 26.25 | 1977 | 367 |
| 54. CH | 4.39 | 3.80 | 4 | 3.35 | 3.52 | 4.67 | 14.76 | 24.96 | 1961 | 140 |
| 55. STAL | 4.39 | 4.29 | 2 | 2.88 | 2.75 | 5.83 | 20.57 | 28.85 | 1963 | 320 |
| 56. LW | 4.45 | 3.75 | 5 | 3.77 | 3.79 | 4.79 | 13.36 | 34.14 | 1971 | 372 |
| 57. RF | 4.79 | 3.49 | 4 | 3.47 | 3.75 | 4.06 | 16.27 | 26.95 | 1972 | 244 |
| 58. BL | 4.73 | 4.16 | 7 | 3.65 | 3.77 | 5.27 | 20.43 | 41.44 | 1965 | 336 |
| 59. TAC | 5.62 | 5.25 | 1 | 2.79 | 3.23 | 6.34 | 11.70 | 19.29 | 1961 | 285 |

EMPIRES IN ARMS

The Game of Grand Strategy in the Age of Napoleon

\$35.00

EMPIRES IN ARMS, the Avalon Hill version of the popular wargame from Australia by the same name, is surely one of the most complex games in our line. Indeed, the rating for Complexity (9.10) from the few readers that responded places it above even *ASL* in scope of simulation. But, that's only to be expected in a game where players guide the fate of entire nations during one of the most turbulent periods of Europe's long history. And, with even the shortest scenario taking some three-and-a-half hours to play, this isn't a game that can be completed in a casual afternoon.

Nevertheless, *EIA* has been exceedingly popular among those hard-core gamers devoted to multi-player, "monster" games. The Play Balance (3.06) and Authenticity (2.27) ratings seem to support their judgement. Of course, the time commitment and complexity of such "monster" games do tend to dampen the Playability ratings; *EIA*'s is comparable with that for *THE LONGEST DAY*, the only other true "monster" in our extensive line. The relatively high Excitement Level for *EIA* might be explained by the fact that players of defeated powers in the game have little to do or lengthy periods of time while they rebuild their forces.

Ratings for the artwork and components were surprisingly disappointing. In fact, the artwork was taken directly from negatives supplied by the Australian designers. However, readers seem to have come to expect the highly colorful and artistic mapboards and counters, player's aids and rulebooks of our resident artists.

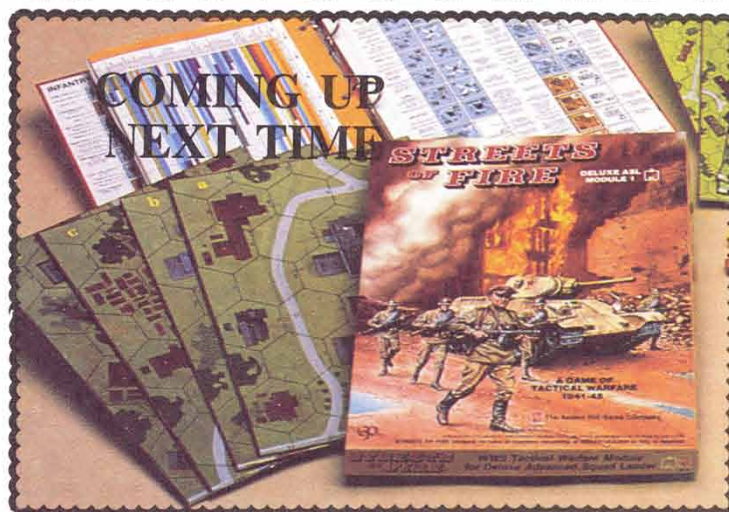
Overall Value: 3.49
Components: 3.55
Map: 4.80
Counters: 2.56
Player's Aids: 3.16
Complexity: 9.10
Completeness of Rules: 3.11
Playability: 5.12
Excitement Level: 3.63
Play Balance: 3.06
Authenticity: 2.27
Game Length

Shortest: 3 hrs., 35 mins.

Longest: 11 hrs., 24 mins.

Year: 1986

Sample Base: 18



AREA TOP 50 LIST

| Rank | Name | Times On List | Rating | Previous Rank |
|------|---------------|------------------|----------|------------------|
| 1. | K. Combs | 55 | 2517XOW | 1 |
| 2. | D. Burdick | 54 | 2223GGGO | 2 |
| 3. | J. Beard | 44 | 2168HIR | 3 |
| 4. | J. Noel | 8 | 2168DDJ | 4 |
| 5. | J. Kreuz | 49 | 2162HGO | 5 |
| 6. | B. Sinigaglio | 40 | 2152GLJ | 6 |
| 7. | E. Mineman | 25 | 2119DFG | 7 |
| 8. | P. Siragusa | 49 | 2110FHK | 8 |
| 9. | D. Garbutt | 53 | 2106GIO | 9 |
| 10. | S. Sutton | 22 | 2029FHN | 10 |
| 11. | P. Gartman | 20 | 2025HHK | 11 |
| 12. | P. Flory | 31 | 1999EHK | 12 |
| 13. | P. Landry | 29 | 1997HIN | 20 |
| 14. | F. Preissle | 52 | 1992MNY | 13 |
| 15. | M. Sincavage | 44 | 1988EFK | 14 |
| 16. | B. Remsburg | 38 | 1987HIQ | 15 |
| 17. | T. Oleson | 64 | 1985YZZ | 16 |
| 18. | R. Beyma | 30 | 1979DDG | 17 |
| 19. | F. Reese | 35 | 1977IDJ | 18 |
| 20. | G. Schnittker | 2 | 1971CEI | 24 |
| 21. | F. Freeman | 30 | 1964EFG | 21 |
| 22. | C. Corn | 4 | 1948DEA | 22 |
| 23. | H. Newby | 20 | 1942RIL | 18 |
| 24. | W. Scott | 52 | 1932MJV | 23 |
| 25. | T. Deane | 7 | 1908EBB | 25 |
| 26. | R. Leach | 56 | 1906ILS | 26 |
| 27. | L. Kelly | 48 | 1889WWZ | 27 |
| 28. | M. Rogers | 15 | 1880CEH | 28 |
| 29. | J. Eliason | 3 | 1875EHK | 33 |
| 30. | K. McCarthy | 9 | 1872CFI | 29 |
| 31. | B. Schoose | 20 | 1871GIM | 30 |
| 32. | G. Smith | 9 | 1846FGM | 31 |
| 33. | E. O'Connor | 13 | 1841FGM | 32 |
| 34. | N. Cromartie | 40 | 1838GHO | 34 |
| 35. | R. Berger | 4 | 1833CDE | 35 |
| 36. | S. Johns | 8 | 1831HFI | 36 |
| 37. | P. Halfman | 5 | 1830GGN | 37 |
| 38. | P. DeVolve | 21 | 1828DED | 38 |
| 39. | B. Salvatore | 22 | 1824GKO | 39 |
| 40. | L. Barlow | 2 | 1811IKS | 48 |
| 41. | J. Anderson | 12 | 1809DDF | 41 |
| 42. | J. Martin | 13 | 1807DFI | 42 |
| 43. | M. Simonitch | 25 | 1807DFH | 43 |
| 44. | R. Phelps | 36 | 1806HJQ | 44 |
| 45. | E. Miller | 2 | 1805HKQ | 50 |
| 46. | M. Miller | 41 | 1795GHO | 45 |
| 47. | G. Garrell | 2 | 1794GEC | 46 |
| 48. | M. Frisk | 9 | 1793CDH | 47 |
| 49. | F. Ornstein | 38 | 1786GHM | 49 |
| 50. | D. Mattson | 3 | 1782HIQ | 40 |

Mr. Michael Frisk is 30, single, owns and manages a consulting firm—MDF Computer Applications—in Laurel, Maryland.

Favorite Game: PANZERBLITZ

AREA Rated Games: PB, STAL, DD

AREA W-L Records: 15-2

Gaming Time/Week: 6 hrs.

Hobbies: God, Frisbee, Chess, Tropical Fish, Tennis

Pet Peeve: Getting a PBM turn and having to wait 45 days for the CTD to mature.

% Time PBM: 80%

Play Preference: PBM

"I really don't have that much to say, as I am relatively new to this hobby. I think the best thing that ever happened to me, as far as AH games are concerned, was the evolution of the PBM systems. I rarely have the time to sit down to a FTF game, and it is hard to find FTF opponents right when you want to play. With the advent of PBM systems, I can play all the time with opponents from other states and relax and enjoy the game. Games take longer to finish, but I get to meet other people from various places; I've met some fine people through the PBM games. It allows me to enjoy the hobby, construct relatively error-free moves, and finally feel secure that the game I'm buying will be played by more than one person."

Infiltrator's Report

Our long-overdue look at some of our Napoleonic period games, highlighted by the introduction of *EMPIRES IN ARMS*, seems to have pleased the majority; the Overall rating (2.98) certainly reflects this satisfaction. Surprisingly, however, the best ranked articles dealt not with *EIA*, but rather with those three old stand-bys for wargamers—*THIRD REICH* and *WOODEN SHIPS & IRON MEN* and *WAR & PEACE*. The ratings for all the articles in Vol. 23, No. 4 of *The GENERAL* are as follows:

| | |
|---|-----|
| THE EMPIRE STRIKES BACK | 282 |
| THE ROYAL NAVY TRIUMPHANT | 153 |
| TETE-ATETE WAR & PEACE | 141 |
| AH PHILOSOPHY | 118 |
| GRAND—AND GRANDIOSE—STRATEGY | 107 |
| DESIGN ANALYSIS | 96 |
| FATE OF EMPIRE | 96 |
| THE ALLIED SCHOOL OF STRATEGY | 82 |
| WE MAY FRIGHTEN THEM TOO MUCH | 71 |
| BAMBI'S WAR | 54 |

Elsewhere in this issue is a superb little article analyzing city construction strategy in *CIVILIZATION*. For those who did not read the brief acknowledgement, it should be noted that this piece first saw print in *The Washington Gamer*, a fine amateur publication and voice of the Washington Gamers Association. After twelve years, the WGA is the area's oldest and most active gaming organization, with weekly game sessions and many special events. Membership information may be obtained from Mr. Bill Cumberland (8400 South Dickerson Street, Arlington, VA 22204). Membership dues (at last report, \$5.00) bring a subscription to *The Washington Gamer*, which is devoted to reviewing and analyzing games of interest to the members; past issues have looked at a number of Avalon Hill games and the upcoming issue takes a look at *Ambush* and has "series replay" of a *Battle Hymn* episode. More information, such as independent subscription costs or sample copies, may be obtained from the editor, Mr. Albert Parker (3303 Cannongate Road #201, Fairfax, VA 22031).

For four years, the 120-page monthly magazine *Tactics* has served the vast number of experienced wargamers in Japan. To the many among our readership who have recognized Japanese-language articles in those pages that closely resemble some that have initially seen print in *The GENERAL* and written to us, have no fear—no copyright infringement has occurred. The Japanese editors have a contractual agreement with The Avalon Hill Game Company that allows them to translate the best of our articles and publish them in *Tactics*. Merely proof again that *The GENERAL* brings its readership the best material on our wargames outside the box.

Recently our editorial offices have been deluged (well, maybe drenched is a better description) with unsolicited manuscripts for consideration. While we certainly welcome the chance to print the best material on Avalon Hill games available, a few words of advice might serve to save some of these authors disappointment. First, before embarking on any lengthy article or on any form of Series Replay, it would be best if the gamer contact the editor of *The GENERAL*; many times these types of articles present problems of layout and space, and some may be rejected due to these considerations whereas with some advance planning they could have seen print. Secondly, it is always wise when planning or making your first submission to obtain a copy of our Guidelines to contributors. This handy item is yours for a SASE, and might save you quite

a bit of wasted time and duplicated effort in formatting your piece. Third, it is advisable to check with the editors before submitting any article on one of our discontinued games; the recent increase in the number of such titles may force some changes in a project already in progress. Finally, as is no doubt apparent, I favor a healthy dose of history with the usual mix of articles; however, please do not submit historical pieces that have no tie-in with a specific game. The *GENERAL* remains dedicated to the play of our extensive game line; it is not a *Military History Illustrated* clone. So, for would-be authors among our readership, this is an invitation to contact us before submitting your first work or any extensive article; we are always happy to offer advice on the hard facts of writing for the oldest wargaming magazine on the market.

The Avalon Hill Game Company has obtained the rights to the use of the characters and plot line of both the novel *Platoon* by Dale A. Dye and the Academy Award-winning movie of the same name. The playing pieces represent each of the main characters from the story, and the mapboard is a colorful recreation of typical Vietnamese terrain where the action took place. *PLATOON*, designed by Craig Taylor as an entry-level wargame (only two pages of rules), portrays the author's philosophical approach to the Vietnam War. A recent announcement from the studio reads as follows:

"At the request of the director of this film, any proceeds allocated to him will be donated to the Vietnam Veterans of America Foundation."

Appealing to a wide audience, historians and veterans alike should appreciate the extreme accuracy in the design of *PLATOON*. The game, which should be available by the time you read this column, retails for \$16.00. Look for it, or order it direct from The Avalon Hill Game Company (4517 Harford Road, Baltimore, Maryland 21214).

Contest 134, a challenge to anyone who has ever played France in a multi-player game of *EMPIRES IN ARMS*, brought few responses. Likely, many of our readership have yet to find the time or opportunity to master this complex "monster" game. However, some did take up the challenge. Unfortunately, most seemed to want to punish the defeated Prussians (moving to Kustrin or Berlin) rather than take on the more dangerous Austrians. And one respondent moved the *Grand Armee* to Wittenberg, apparently wasting his double move! The only respondent to move in the general direction of the Austrians at Linz did not engage in a battle. Seems we have no new Napoleons among our readership.

Contest 135 pitted our readership against a Zeppelin in one of the solitaire scenarios from *KNIGHTS OF THE AIR*. The trick for the Camel pilot, short on time and fuel, is to reduce his speed to 70 mph, thereby permitting the craft to make 1T left turns. This positions it directly facing the nose of the Zeppelin. No matter how the airship moves, the airplane has one last shot at it. Beware moving the Camel adjacent to the Zeppelin, however, because at this range a successful hit almost certainly dooms the airplane as well as the airship to a fiery fall. Successful contest entry forms shall have the following information:

| | Control Stick | Engine | Power | Final Speed | Turn Speed | Altitude |
|-----------------|---------------------|--------|-------|----------------|---------------|----------|
| At Start | 0 | 5 | 5 | 90 | 90 | 18454 |
| Preparation | -2 | 5 | 3 | 50 | 70 | 18492 |
| Adjustments | NO ADJUSTMENTS MADE | | | | | |
| Maneuver | No. of Hexes | | | | | |
| 1. 1T Left Turn | 4 hexes | | | | | |
| 2. Straight | 1 hex | | | | | |
| 3. 1T Left Turn | 1 hex | | | | | |
| 4. Straight | 1 hex | | | | | |

1830 \$23.00

The Game of Railroads & Robber Barons

INSTRUCTIONS:
Rate each category by placing a number ranging from 1 through 9 in the appropriate space to the right (1 equating "excellent"; 5, "average"; 9, "terrible"). EXCEPTION: Rate items 7a and 7b in terms of minutes necessary to play the game, in ten-minute increments. (Example: If you've found it takes two and a half hours to play the basic scenario of *FRANCE 1940*, enter "15" for category 7a.) For an explanation of the categories, refer to the AH Philosophy of Vol. 19, No. 4. Sub-categories are indicated by italics. Enter ratings only for those categories relevant to the game in question. Note that AH's ratings for **Complexity** and **Year of Publishing** have been provided; do not rate these categories.

| | |
|--------------------------|-------|
| 1. Overall Value | _____ |
| 2. Components | _____ |
| 2a. Mapboard | _____ |
| 2b. Counters | _____ |
| 2c. Player's Aids | _____ |
| 3. Complexity | 5 |
| 3a. Complexity | _____ |
| 4. Completeness of Rules | _____ |
| 5. Playability | _____ |
| 5a. Excitement Level | _____ |
| 5b. Play Balance | _____ |
| 6. Authenticity | _____ |
| 7. Game Length | _____ |
| 7a. Basic/Shortest | _____ |
| 7b. Advanced/Longest | _____ |
| 8. Year of Publication | 1986 |

Good for Postage Charges Only on Complete Game Purchases

This coupon is valid only for mail order purchases of complete games direct from The Avalon Hill Game Company. Each postage coupon entitles the sender to deduct up to \$1.00 from the postage charges of any order for a complete game provided the amount deducted does not exceed the total postage charge for that order. Coupons are not usable for parts, magazines, or pbm kit orders. Shipping charges are 10% of the dollar amount of your order if sent to a USA address. Shipping costs to Canada and Mexico are 20% of the order; overseas orders must add 30%. Any past GENERAL postage coupons previously offering different values may be used as the equal of this coupon. Example: Customer A lives in the USA and orders a \$15 game. His postage charge is \$1.50 which he may pay by sending in 2 postage coupons and \$15, or 1 postage coupon and \$15.50. Customer B lives in Canada and orders the same game. He must pay \$15 in USA funds plus 3 postage coupons or \$15 plus \$1 for each postage coupon less than .3 which he sends.

\$1.00

WHAT HAVE YOU BEEN PLAYING?

Top ten lists are seemingly always in vogue these days. Whether the subject is books on the Best Seller List, television's Nielsen ratings, or even games, the public never seems to tire of seeing how their individual favorites stack up numerically against the competition. Our preoccupation with this national pastime is almost akin to rooting the home team on to victory every Sunday. So to further cater to your whims (and to satisfy our own curiosity) we unveil The *GENERAL*'s version of the gamer's TOP TEN.

We won't ask you to objectively rate any game. That sort of thing is already done in these pages and elsewhere. Instead, we ask that you merely list the three (or less) games which you've spent the most time with *since* you received your last issue of The *GENERAL*. With this we can generate a consensus list of what's being bought. The degree of correlation between the Best Selling Lists and the Most Played List should prove interesting.

Feel free to list any game regardless of manufacturer. There will be a built-in bias to the survey because you all play our games to some extent but it should be no more prevalent than similar projects undertaken by other magazines with a special interest-based circulation. The amount to which this bias affects the final outcome will be left to the individual's discretion.

The games I've spent the most time playing during the past two months are:

- _____
- _____
- _____

Opponent Wanted 50¢

- Want-ads will be accepted only when printed on this form or a facsimile and must be accompanied by a 50¢ token fee. No refunds. Payment may be made in uncanceled U.S. postage stamps.
- For Sale, Trade, or Wanted To Buy ads will not be accepted. No refunds.
- Insert copy on lines provided (25 words maximum) and print name, address, and phone number on the appropriate lines.
- Please PRINT. If your ad is illegible, it will not be printed.
- So that as many ads as possible can be printed within our limited space, we request that you use official state and game abbreviations. Don't list your entire collection, list only those you are most interested in locating opponents for.

Advanced Square Leader—ASL, Afrika Korps—AK, Air Force—AF, Anzio—AZ, Arab-Israeli Wars—AIW, Banzai—BANZ, Beyond Valor—BV, Bismarck—BS, Blitzkrieg—BL, Britannia—BRIT, Battle Of The Bulge—BB, Bull Run—BR, Caesar Alesia—CAE, Circus Maximus—CM, Civilization—CIV, Dauntless—DL, D-Day—DD, Devil's Den—DEV, Diplomacy—DIP, Empires in Arms—EIA, Firepower—FP, Flat Top—FT, Flight Leader—FL, Fortress Europa—FE, Freedom in the Galaxy—FITG, Gettysburg—GE, Gladiator—GL, Guns Of August—GOA, Gunslinger—GSL, Hitler's War—HW, Kingmaker—KM, Knights of the Air—KOTA, The Longest Day—TLD, Luftwaffe—LW, Magic Realm—MR, Midway—MD, Napoleon—NP, Naval War—NW, Panzer Armee Afrika—PAA, Panzerblitz—PB, Panzergruppe Guderian—PGG, Panzerkrieg—PK, Panzer Leader—PL, Paratrooper—PARA, Rail Baron—RB, Richthofen's War—RW, The Russian Campaign—TRC, Russian Front—RF, Streets of Fire—SOF, Squad Leader—SL, Stalingrad—STAL, Storm Over Arnhem—SOA, Submarine—SUB, Tactics II—TAC, Third Reich—3R, Titan—TT, Up Front—UF, Victory In The Pacific—VITP, War and Peace—W&P, War At Sea—WAS, Waterloo—WAT, Wooden Ships & Iron Men—WSIM.

| | | | | |
|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

NAME _____ PHONE _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

CONTEST #136

| Trains | Routes | Maximum Revenue |
|---------|------------|-----------------|
| 2 | ADH (\$90) | \$90 |
| 2, 2 | | |
| 2, 2, 3 | | |
| 3, 4 | | |
| 4 | | |
| 4, 5 | | |
| 5 | | |
| 5, 6 | | |
| 6 | | |
| Diesel | | |

Total Revenue of Routes = _____

The answer to this contest must be entered on the official entry form (or a facsimile) found on the insert of this issue. Ten winning entries will receive AH merchandise credits. To be valid, an entry must be received prior to the mailing of the next issue of The *GENERAL* and include a numerical rating for the issue as a whole, as well as listing the three best articles. Sorry, only one entry to a contest from each subscriber will be accepted; entries subsequent to the first will be discarded.

Issue as a whole . . . (Rate from 1 to 10, with 1 equating excellent, 10 equating terrible)
Best 3 Articles

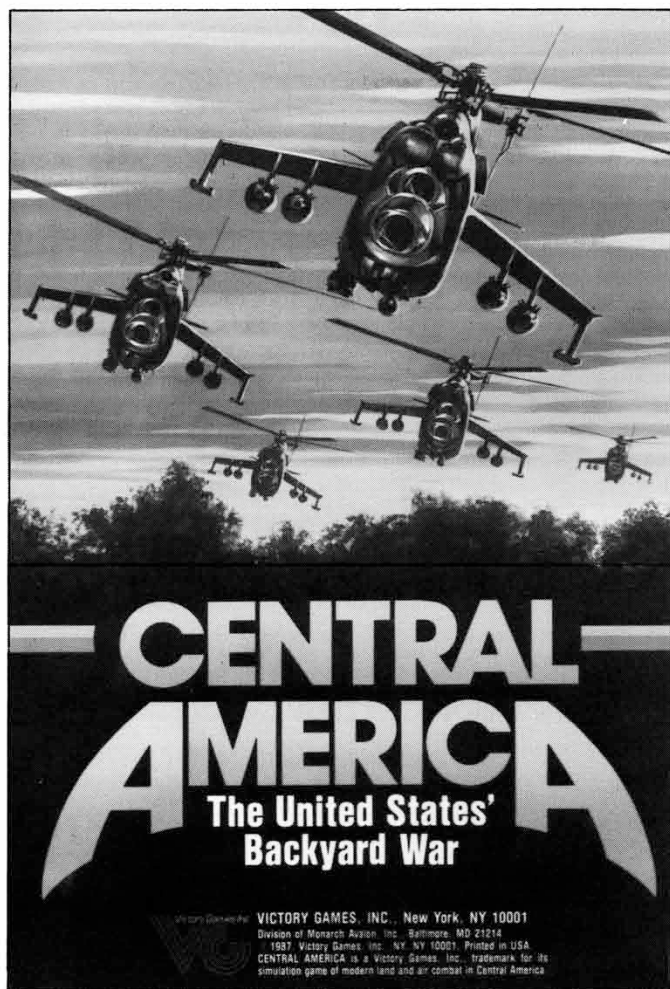
- _____
- _____
- _____

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

IF YOU'VE BEEN THERE, now you can go back and take command!
IF YOU HAVEN'T, this may be the closest you ever get — without being shot at!



THE SECRET WARS

Not since the lost nights of super spy Reinhard Gehlen (and the now legendary post-World War II Berlin intelligence war) has so much mystery shrouded a battlefield. The modern conflicts that have convulsed Central America erupted with the tragic "Soccer War" between El Salvador and Honduras. They then escalated from pre-revolutionary Nicaragua to the fall of Somoza, spread to the struggle in El Salvador, and returned again to the post-revolutionary Nicaraguan civil war. This cycle of strife continues even unto today. Excerpted from Central America's situation analysis, which provides an historical framework spanning the era from 1930 to the present.

From the publishers of the acclaimed *Vietnam: 1965-1975* comes the most important historical simulation of the decade, *Central America: The United States' Backyard War*. Go beyond spotty news reports to study the complex and ever-changing conflicts south of our own borders. With *Central America*, you are in command, manipulating over 700 playing pieces, representing everyone from the CMA to the Sandinistas, from US Marines to Cuban "advisors," from the CIA to the FMLN. Maneuver and engage across a full color 22"×32" mapsheet that covers all of Nicaragua, Honduras, and El Salvador, as well as adjacent areas of Costa Rica and Guatemala.

Central America is not a game to play with the kids. It is a comprehensive, dynamic model of a complex military-political situation that makes demands on your time, energy, and imagination. Drawn from non-classified sources, *Central America* organizes an enormous body of data into an exciting game system that allows you to adjust the level of complexity — by playing the basic game, advancing to the Superpower intervention level, or by adding any of the optional rules provided.

Central America includes 16 distinct scenarios, each of which details a portion of the conflict in 1 to 10 hours of playing time. Moreover, a complete system of scenario generation is provided, allowing you to decide the intensity of the conflict, permitting you to commit air and ground forces as you see fit, and demanding that you live with the effect of your command decisions on the ever-dangerous index of World Tension!

CENTRAL AMERICA:
The United States' Backyard War
Product Nr. 30024. \$30.00

Available in game and hobby stores nationwide, or order direct by telephone.



VICTORY GAMES, INC.

43 West 33rd Street, New York, New York 10001
Division of Monarch Avalon, Inc., Baltimore, MD 21214

TO ORDER, CALL TOLL-FREE:

1-800-638-9292

MAJOR CREDIT CARDS ACCEPTED

LAST ACT IN LORRAINE

ASL SCENARIO G2



SINGLING, FRANCE, 6 December 1944: For nearly a month the US 4th Armored Division had been fighting in difficult terrain to clear Lorraine. On 6 December, in an attempt to take Bining and Rohrbach and reach the River Sarre and the German border, Lt. Col. Creighton Abrams' tank battalion was broken into two combat teams to facilitate its advance. Sweeping north, the leading task force came under heavy direct and indirect fire from the direction of Singling, a village occupied by elements of the 111th Panzergrenadier Regiment. Abrams decided on his own initiative to attack the town and attempt to hold it while the remainder of his force turned toward Bining. Cpt. Leach, in command of Company B with armored infantry aboard, was given no time to scout enemy positions or make plans. Spreading his command into a line abreast formation, Leach led them in a grand charge over the crest to the south in finest cavalry tradition, while supporting artillery poured smoke and HE into the town to mask his approach.

BOARD CONFIGURATION:

BALANCE:

✚ Add 9-1 Armor Leader to German OB.

☆ The American must Control three of the four multi-hex buildings on board 12.



| |
|----|
| 12 |
| 17 |

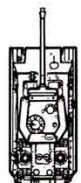
VICTORY CONDITIONS: The U.S. player must control all four multi-hex buildings on Board 12.

TURN RECORD CHART

| | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|----|-----|
| ✚ GERMAN Sets Up First [103] | ☆ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | END |
| ☆ AMERICAN Moves First [138] | | | | | | | | | | | | |



Elements of 1st Battalion, 111th Panzergrenadier Regiment [ELR: 2] set up within five hexes of 12Q5, but AFV may not set up in buildings: {SAN: 4}



| | | | | | | | | | | |
|-----------------|---------------|--------------|-----|-----|-----|-----|-----------|-----------|----------|---|
| 2 4-4-7 | C 4-3-6 | 100 2-2-8 | 9-1 | 8-1 | 8-0 | 7-0 | 3 7-16 | 2 5-12 | 1 3-8 | 8 |
| 3 | 10 | 4 | | | | | | | 2 | |
| 15 75L 3/5/2 | 13 75L 1/- | M8 | M10 | | | | | | | |
| 3 | 2 | | 3 | | | | | | | |



Company B, 37th Tank Battalion with elements of 51st Armored Infantry Battalion [ELR: 4] enter mounted on Turn 1 on southeast corner of board 17 on or between 17GG6 & 17Y10: {SAN: 2}



| | | | | | | | | | | | |
|------------|------------|-----|-----|-----|-----|---|-----------|-----|----------------|-----------------|----------------|
| E 6-6-7 | 1 6-6-6 | 9-1 | 8-1 | 8-0 | 7-0 | 2 | 44 8-4 | 9-1 | 12 75 2/4/4 | 13 76L 2/4/4 | 15 75 2/4/4 |
| 2 | 10 | | | | | 2 | 3 | | | 6 | 6 |

SPECIAL RULES:

1. EC are Wet with a Mild Breeze blowing to the southwest. All woods and brush are considered orchards. All buildings are ground level (B23.21), except those hexes with a stairwell symbol which are considered Two-Story houses with a level 1 Location as well (B23.22). Rowhouse rules still apply. 12R7 is not subject to VBM nor do vehicles therein receive building TEM unless they actually enter the building. Vehicles may enter 12R7 normally provided they do not pass through a building hexside. Place a Blaze counter in hexes 12P9 and 12O9.

2. The American player, prior to play but after all setup, may automatically place two Smoke Concentration FFE anywhere on the mapboard. Roll normally for Accuracy; any Extent of Error dr is halved (FRU). See A24.4 and A24.61. Any six American AFV may be designated as having Stabilized Guns (D11.1) prior to German setup; the remainder may not.

3. One battery of 81mm Mortar OBA is available to the German player. During the first Game Turn, German units may move only during their APh/RtPh unless Recalled.

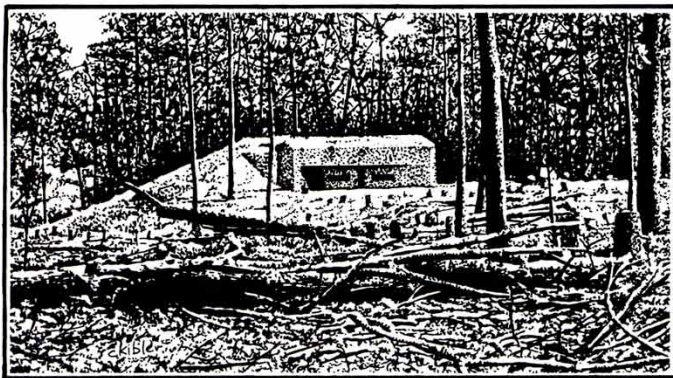
4. Civilian Interrogation (E2.4) is available, but is considered hostile to the American player.

AFTERMATH: The neat American formation was soon broken, as two tanks lagged behind and the leading tank was hit by three AP shells. With that, the armored battle became a confused free-for-all in the streets and alleys of the picturesque French village. The infantry had dismounted as the tanks passed the hedge bordering the houses on the south and had swept the village free of German infantry while avoiding the worst of the armored battle. Only a volley of enemy mortar rounds on the square checked their advance. A stalemate soon developed, with the armor of both sides stalking each other in the village and its environs. At dusk, the Americans—since reinforced by a further armored infantry battalion—were ordered to pull back and corps artillery put a heavy barrage on the town. The final reckoning of the battle of Singling shows the action a draw; American casualties amounted to five Shermans and 22 men while the Germans lost two Panthers and some 57 men.

THE FORGOTTEN FRONT

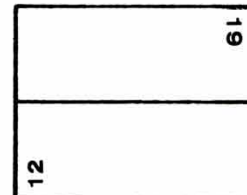


ASL SCENARIO G3



HENNEBONT, FRANCE, 9 February 1945: The 66th Infantry Division was typical of many raised from draftees in preparation for the invasion of Europe. Yet when the "Panthermen" arrived, they found themselves relegated to a relative backwater—containing the isolated German pockets around Lorient and St. Nazaire. Their war was no less bitter, however, as both sides continuously probed and raided opposing lines. The village of Hennebont lay in the "no-man's land" north of Lorient. On this nondescript day, a limited American assault was "laid on". It was typical of the fighting around the embattled Nazi bastions. It was also typical of the heroism shown by the conscript soldiers of both sides.

BOARD CONFIGURATION:



BALANCE:

♣ Reduce American ELR to 3.

☆ Allow the Americans to set up on any whole hex of board 12.

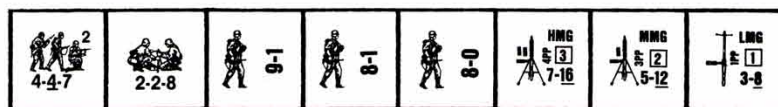
VICTORY CONDITIONS: The American player must Control any two German pillboxes at game end, or earn more Casualty Points than he loses providing he has taken German prisoners (two SMC or one MMC) and retains them at game end.

TURN RECORD CHART

| | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|-----|
| ♣ GERMAN Sets Up First [106] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | END |
| ☆ AMERICAN Moves First [220] | | | | | | | | | |



Elements of the 895th Grenadier Regiment [ELR: 3] set up on Board 19 hexes numbered > 6: {SAN: 5}



14

2

2

3



3

3

6



Elements of the 262nd Infantry Regiment [ELR: 4] set up within five hexes of 12Q10: {SAN: 3}



20

3

3

4

2

3



SPECIAL RULES:

1. EC are Moist with no wind at start. 12U5 is a third-level building hex.
2. German pillboxes must be placed in Open Ground non-road hexes, no closer than five hexes to any other pillbox.

AFTERMATH: As the infantrymen left the shelter of the ruined village, to which they had probed without incident, fire from a bunker raked their ranks. The Americans sheltered behind armored cars coming to their support, but a flanking bunker opened fire also. Intended solely to probe defenses and to bring back prisoners for G2, the mission was proving costly. But Sgt. Chunfat—who saw his entire squad go down—charged straight at the bunker, found the entrance and with phosphorus and explosive grenades, silenced the machinegun nest. Leaving the bunker, he stumbled into a German communications trench and ambushed the enemy within. The American attack, despite heroism like this, was stymied. The bitter "little war" continued. Despite heavy shelling and constant pressure, the German forces in Lorient did not surrender until the collapse of the Reich.